ABSTRACT OF A

Clinical Lecture

ON

FOREIGN BODIES IN THE EYE.

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AFTER dilating upon the more common form of injuries, Mr. Jeaffreson said:—I wish to explain to you the rule of practice I adopt where there is supposed to be a foreign body in the eye. Of course where there is an extensive rupture and sight is obviously and permanently destroyed, search may be made in the eye if desirable, but it can scarcely ever be necessary, as evisceration or enucleation should always be immediately performed. It is in cases where the wound is not so extensive, where there is still perception of light, that we shall have some hesitation as to how to act. Let me give you a case in point. A man was brought to the hospital with the history of having been struck with a piece of metal chipped from a tool. There was a wound three-eighths of an inch long dividing the cornea at its junction with the sclerotic, the iris was also split, a small piece was prolapsed. (Fig. 1.) There was a good deal of blood in the anterior chamber, but still fair perception of light. The patient could count fingers at one or two feet with his back to the light. How should we proceed in such a case? If there is a foreign body in the eye and it remains the eye is doomed to destruction. If there be none, there is a prospect of retaining the eye, which, although seriously damaged, is better than an artificial organ. In this case it is obviously of the very first importance to determine if there is a foreign body in the eye, and to leave no stone unturned which will help us in determining that point. First, we must have a minute and careful history of the case, and collect all the outside testimony which can be brought to bear upon the point. The object from which the foreign body has become detached should, if possible, be produced. In the present case the tool is a cold chisel, and the piece detached about three-eighths of an inch by two-eighths. (Fig. 2.) It has not been found or picked up in the shop. This is a point in favour of its being lodged in the eye, though not of very great importance, as such a small object might elude search. Can we derive any information from the nature of the wound? The cornea is cut, the aqueous has escaped, the iris is incised, and the cavity of the vitreous is opened. Under these circumstances, it is exceedingly improbable the piece should have made such a wound and fallen out again, unless it were a large piece, which we know it is not. To obtain corroborative evidence we employ the magnetic needle. The needles that I employ were manufactured for me by Messrs. Milward and Co. of Redditch. They consist of a very fine double-pointed needle about one inch in length, with a fine eye in the centre. A very delicate piece of silk is passed through the eye and knotted, and the other end is attached to a small ivory handle as seen in the sketch. The length of the silk must be such as to give the needle sufficient play to sew with, and something about twelve inches is sufficient for this. (Fig. 3.)

FIG. 1.

FIG. 2.

FIG. 3.

The patient must be now placed upon a couch so that the commissure of the eye lies north and south, and the needle gradually lowered over the organ. Opening the commissure widely, the needle is promenaded over the globe as close as possible without touching it, and the patient is also directed to facilitate matters by moving the eye to the greatest extreme in different directions. If this be carefully and steadily done, and the needle remains perfectly steady, the inference is that there is no piece of metal (steel or iron only) in the eye. This is, however, only negative evidence; its sources of fallacy I shall allude to presently. In the event of there being distinct deflection, we have positive evidence of a piece of metal, and that probably of a considerable size. The magnetic needle may therefore be of the greatest value to us in these cases, and its employment should never be neglected. As I said before, sometimes it is uncertain in its action. This may arise from two causes—either the piece of metal is too small to influence the needle, or it may lie at too great a depth.

From experiments made upon eyes which have been enucleated and animals' eyes, I find that a piece of metal weighing two or three grains, lying immediately under the sclerotic, will very sensibly and obviously deflect the needle; a piece the same size lying at the opposite extremity of the eye will not do so, the substance of the vitreous proving an obstruction to the magnetic current. (Fig. 4.) If the piece were double the size it would do so in any position. So you see the chances of getting the reaction upon the magnetic needle depends much upon the size of the fragment and its relation to the surface. In experiments made upon eyes removed we can approximate the needle to all parts of the surface of the globe; but when the eye is *in situ*, a comparatively small part of it can be so explored, and this introduces an element of failure. In making the test we must be careful to see that the needle does not come into contact with the lashes, and thus obtain an artificial deflection. In some cases, to facilitate matters, it may be necessary to cut the lashes short. You must not either be led astray by the adhesion of the point of the needle to the globe. If the point touches the globe by accident it will most certainly adhere, and requiring a little force to draw it away will give the impression of magnetic attraction. What we wish to see is lateral deflection or an oscillatory movement of the needle, which a few trials will make you familiar with. Well, in our illustrative case, the deflection of the needle was very obvious, and I was able to diagnose with certainty the presence of the piece of metal. The galvanic probe was cautiously introduced into the vitreous; a slight click was felt, and the probe cautiously and slowly withdrawn. When the piece of metal arrived at the internal opening of the wound it could not be drawn through, owing to its not coinciding with the position in which it originally entered the eye. This is a common occurrence, and one we should always be prepared to deal with. It is better immediately to enlarge the wound in the direction where the enlargement will cause least danger to ocular structures (generally backwards) than to let the body slip and attempt to get it attached to the probe in a more favourable position. I therefore enlarged the wound with a cataract knife, and the piece was readily extracted. The piece of prolapsing iris was now abscised and a conjunctival suture inserted close to the margin of the cornea. In this case everything pointed to the presence of the foreign body in the globe, and we had the positive evidence of the magnetic needle. Had it not been so, I think we should still have been justified in making a careful search for the foreign body. If it is carefully and gently done with a perfectly clean instrument, it can scarcely increase the mischief of the original injury. Of course what I say applies only to particles of iron and steel. With other materials which cannot be secured by means of the galvanic probe we shall scarcely be justified in searching, because if we found a foreign body we could rarely extract it without making a large opening for the introduction of the forceps. An exception to this rule must be made in the event of the foreign body being absolutely seen *in situ*. This sometimes happens when the patient is brought immediately after the accident, and the media and structures of the eye are still transparent. Under these circumstances I have occasionally been able to remove pieces of stone, copper, brass, &c.,

FIG. 4.

using, when the body was small, a pair of cannula forceps; when it was large, a pair of aural forceps. It is rare, however, that the circumstances are sufficiently favourable for us to carry out these manœuvres; as a rule we must be content to wait till symptoms develop themselves. In the event of the foreign body being large and of an irritating nature, a panophthalmitis will rapidly develop; under the contrary circumstances the body may become encapsulated or encysted and the eye quiet down, retaining sight in various degrees, from perfect vision to the mere perception of light.

I now wish to say a few words about another class of cases which are comparatively common, and always fraught with great anxiety and responsibility for the surgeon. I allude to those cases in which a small foreign body penetrates the cornea, and becomes lodged in the iris. The shock of the accident may have been so slight as perhaps scarcely to attract the patient's notice; yet the results may be of the most serious import. I cannot do better than illustrate what I have to say by a case which has occurred to me lately.

A smith at work in his forge felt something strike his eye. It gave him comparatively little pain, and he never for a moment suspected anything serious had happened to him. In the course of the day he applied to a local doctor, who told him there was nothing in the eye, but gave him a little soothing lotion. A few days after he applied to me. The eye was injected, painful, and tender. There was some serous iritis, and on the edge of the pupil near to the margin could be seen a small nodule of lymph. This, I suspected, contained a foreign body, more especially as the traces of a minute wound could be seen in the cornea. I explained my view to the patient, and pressed upon him the necessity of allowing me to attempt its removal. This he consented to do. Being a powerful and apparently a strong-willed man, I consented to make the attempt without chloroform. An incision about four millimetres in length was made in the margin of the cornea opposite this nodule of lymph and a curette introduced. On touching the nodule the lymph crumbled away, and the glistening surface of a metallic particle was seen—a flat scale not larger than a small pin's head. I tried to coax it into the curette, but it remained immovable, so I resolved to remove it by forceps together with the piece of iris to which it was attached. No sooner had I seized it together with the piece of iris than the patient gave a sudden and uncontrollable jump, at the same time violently rotating his globe. A large piece of iris was dragged from its attachment, the anterior chamber became filled with blood, but whether the piece of metal escaped or not it was not possible to decide.

The result of this case will no doubt be unfortunate, but I can scarcely attach any blame to myself owing to want of skill, though I do for not having refused to operate without chloroform being administered. In the whole range of ophthalmic surgery there are no cases which require greater care, greater dexterity, greater patience, and greater steadiness on the part of the patient than the extraction of foreign bodies in the anterior chamber; for these reasons, therefore, unless under the most urgent circumstances, no attempt should be made to remove them unless the patient is thoroughly anæsthetised. Some years ago my own son was struck by some particles of glass from an exploded bottle; one fragment penetrated the cornea, and could be seen in the anterior chamber; another was lodged in the cornea. Not anxious to undertake the responsibility myself, I telegraphed to my friend, Sir Wm. Bowman; but, learning that he was on the Continent, and fearing delay, I resolved finally to operate. The piece lodged in the cornea was easily removed. The fragment in the anterior chamber was about the size of a hempseed, but irregular and many-angled; it was freely movable, and changed places with the position of the head. Sometimes its position was difficult to distinguish, but usually it lay in the angle at the bottom of the cornea. An incision about five millimetres in length was made in this situation in the sclero-corneal junction, with an angular broad needle, and the fragment extracted with a little manipulation. In this case chloroform was administered by my friend Dr. Nesham, and the result of the operation was most perfect. In some text-books I see that it is recommended not to interfere with foreign bodies in the eye which are unattended by active symptoms. I think cases where such advice can be safely followed must be rare indeed. Where there is a movable body in the anterior chamber it should unquestionably be removed under any circumstances, and in my experience wherever the foreign body is situated the chance of a successful operation is always much greater when there are no symptoms than when these have actually developed. The only exception that perhaps should be made to the immediate extraction of a foreign body is when it is quite small, and is lodged in the vitreous chamber. In this situation it frequently interferes but little with vision, is much more likely to become encapsulated, and unless it is a piece of iron or steel, which can be dealt with by means of the galvanic probe, will require such a large incision for its extraction and so much manipulation that there is great risk of immediate loss of vitreous or secondary suppurative hyalitis.

No one who has not had frequently to perform these operations can imagine the difficulties that may arise. The foreign body is there, clearly visible, and it would seem a simple matter, but it is as trying to the eye, the hand, and the patience as the "pigs in clover" puzzle. As soon as the incision is made the cornea collapses and the object loses its distinctness; now a few drops of blood may exude and cloud all; the foreign body, if attached to the iris, may be difficult to detach; it may fall out of sight between the cornea and the angle of the iris; it may slip through the pupil, or if the iris has been transfixed may tumble through without any warning. I know of no more pleasant feeling of thankfulness than that which one experiences when such an operation comes to a satisfactory and successful termination. It might seem superfluous to warn you against mistaking pigment deposits in the iris for foreign bodies; yet I can assure you the warning is not by any means unnecessary. I have on more than one occasion seen this mistake made by very competent men. A clear and uniformly coloured iris with a single spot of dark-coloured pigment may (when there are a history and symptoms indicative of a foreign body in the eye) lead you astray unless you make a careful examination with oblique illumination, using at the same time a powerful magnifying glass.

Before I finish I wish to call your attention to a case which has recently passed through our hands, in which a considerable piece of metal was lodged in the lens. The subject of it was a young man who was a fitter. Whilst dressing some castings, a piece flew and struck his eye. We did not see him till a week after the accident, and at that time the eye was only slightly injected, the pupil dilated. (He had been under treatment elsewhere.) The cornea showed, a little to the nasal side of its centre, traces of a recently healed wound. The lens was cataractous, but in the centre there was a dark shadow, which suggested the possible presence of a foreign body. There being but comparatively little reaction, no excessive swelling of the lens, and no absolute certainty of the presence of a foreign body, it was resolved to watch for a few days, keeping the pupil fully dilated with atropine. About the fourth day the swelling of the lens had considerably increased, and the intraocular tension having risen, it was resolved to extract the lens. The incision having been made, there was a gush of lens matter, a considerable piece of metal (about eight grains in weight) presenting at the wound and being removed by a pair of forceps. The patient recovered with a perfectly sound movable pupil and good vision. The lens is of course frequently of necessity wounded when a foreign body penetrates the eye, but it is comparatively uncommon that a foreign body becomes lodged in it without further complications. If it is very small—such as a fine scale of metal or grain of powder—it may do but little injury, producing only a limited opacity in its own immediate vicinity, which may remain quiescent and never spread. If, however, it is large and a considerable rent has been made in the capsule, allowing free access to the aqueous humour, a general opacity of the lens will soon occur. In this case we should watch the case carefully, allowing time for the whole lens to become opaque and softened, but not allowing sufficient time for it to become perfectly diffluent, lest the weight of the particle causes it to become dislodged, and it falls into the deeper parts of the eye, when it would certainly set up acute and dangerous symptoms.

To recapitulate, then, briefly the chief points of my remarks, I should say: 1. When an eye is hopelessly and irremediably destroyed it should be at once removed. 2. When an eye does not appear to be irremediably and hopelessly destroyed every effort should be made to retain it. If there is reason to suppose it contains a foreign body a search may be made, provided always that there is reason-

able probability that the foreign body will be removed and the damage to the eye not increased in an important degree. 3. In removing foreign bodies that are attached or embedded in the iris chloroform should be freely administered. 4. Foreign bodies embedded in the lens, and not involving other structures, should not be removed too early; time should be given for the whole lens to soften and liquefy. I regret that time and space forbid me, on this occasion, from speaking concerning that interesting class of case where a foreign body of small size penetrates the globe and becomes lodged upon the retina, being visible with the ophthalmoscope, and producing no other symptoms than a small fixed scotoma. During the last twenty years several cases of this kind have occurred in my practice, and I hope to make them one day the subject of a special lecture.

ON THE DIAGNOSIS AND TREATMENT OF SCROFULOUS GLANDS.

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I PREFER the term scrofulous glands to that of scrofulous adenitis, because it is, in the first place, a term sanctioned by long use; and, secondly, because it is less open to objection on the score of incorrectness. Scrofulous glands are not always inflamed, nor is the scrofulous or tuberculous deposit, although the result of, always attended with, inflammation.

The diagnosis of scrofulous glands is for the most part easy, and it is only in exceptional cases that any difficulty arises. The diagnosis has to be made between simple adenitis on the one hand and glandular growth, or hypertrophy of the nature of lymphadenoma, on the other. As regards simple adenitis, time soon settles the question. Simple adenitis is of short, scrofulous disease of long, duration. In simple adenitis the inflammatory exudation in the gland is resolved, or it suppurates within a reasonable time. If, on the contrary, the gland remains enlarged, say, for three months, either it is scrofulous or is in a likely condition to become so. A second point is that the gland affected by simple inflammation is, as a rule, and especially so if about to suppurate, less defined and more surrounded by hard inflammatory material than the scrofulous gland is likely to be. The gland, with its surroundings, is in simple inflammation generally more painful and tender, and especially has more surface tenderness than the scrofulous gland; the skin too is more often red and hot; in fact, the inflammation is more general and more acute. If the degree of simple adenitis is so slight as to cause merely some enlargement of the gland without induration, pain, and surrounding inflammatory exudation, the case is trifling, and the swelling will probably subside as soon as the source of irritation is removed. No doubt there is a borderland between simple adenitis and scrofulous gland disease. We may imagine, although it is perhaps difficult to demonstrate, a prescrofulous state or condition in a gland. By this I mean a gland which, inflamed and enlarged from local irritation, in a person who has some scrofulous tendencies, hangs fire when the local cause has been removed, and, without exhibiting the distinct characteristics of a scrofulous gland, hesitates and declines either to subside or to suppurate. Here I would refer, as helping the diagnosis, to what I may term the "scrofulous throat." In the throat is to be found the earliest indications of scrofula. The scrofulous throat consists of more or less enlargement of the tonsils, probably with signs of old or recent inflammation and ulceration, together with some amount of post-nasal or pharyngeal catarrh, perhaps adenoid growths and an arched palate. Probably not more than one in ten or twenty children with these throats ever suffer from scrofulous glands in the neck or elsewhere, but, on the other hand, it is exceedingly rare to find scrofulous cervical glands in a child with a perfectly healthy throat. A healthy throat should be taken to mean clean, well-defined arches of palate, pale, unthickened mucous membrane, no enlargement of tonsils, and no chronic catarrh. Thus, then, if a gland in the neck has been enlarged for two or three months, if the child has a scrofulous throat, and if there be any family history of consumption or scrofula, the case may safely be put down as scrofulous. This will be more certain still if the child is in poor health, if the circulation is feeble, and if it has that doughy thickening of the cellular tissue which is so common in scrofula. There is also generally to guide us the solid inelastic feeling of a scrofulous gland, which is, as a rule, quite different from the diffused hardness of ordinary inflammation and the elastic semi-fluctuating sensation given by gland growth as found in lymphadenoma. This diagnostic sign is by no means constant. Lymphadenomatous glands may be hard, and scrofulous ones soft, but the converse is usually found. The diagnosis between scrofulous glands and lymphadenoma is often more difficult than that from simple adenitis; there are some cases which seem to lie between the two. Take the following. A boy, the son of a scrofulous father, has a gland swelling in the neck, very elastic, fluctuating, and free from any inflammatory symptoms. This mass is excised, and is found to consist of quickly growing gland tissue, free from inflammatory or scrofulous deposit; fresh glands grow again, and are a second time excised, presenting the same character; for the third time a gland has enlarged. This boy has had the excessive anæmia which attends lymphadenoma; the glands excised presented the appearance of lymphadenomatous glands, but there is no general infection of glands and no splenic enlargement. I look upon this as a case of lymphadenoma, or as one which was tending in this direction; at the same time, I think this boy will get well, the return each time having been slower, and he is now improving in health; the present gland is, I believe, one which was left behind at the last operation.

General infection of glands, or more than one centre of infection, generally indicates lymphadenoma, but it is not always so. I have a patient from whom I excised scrofulous glands which had undergone cheesy degeneration, and were typically scrofulous, from both groins and both sides of neck and armpits. This patient has no anæmia, and, except the distribution of his diseased glands, has never had a symptom of lymphadenoma. Then, I think, occasionally in the more chronic forms of lymphadenoma that the affected glands may undergo scrofulous degenerations. I had a man admitted into the infirmary in a hopeless condition. He was suffering from lymphadenoma in an advanced stage, and had enlarged spleen and general gland disease. He was too bad for any operation, so that I could not take out the glands to see; but I have no reasonable doubt, from their feel and appearance, that some of his glands had undergone scrofulous degeneration. In mentioning these cases I have used the term "deposit" and "scrofulous deposit," as indicating the cheesy or tuberculous-looking material which is found in scrofulous glands, and as being an expression to which we are accustomed. I do not imply that this matter has been carried and deposited in the gland; on the contrary, it is the gland itself, or a portion thereof, which has undergone this form of degeneration. I have tabulated some of the diagnostic signs which exist between scrofulous glands and simple adenitis on the one hand and lymphadenoma on the other. These signs, however, cannot be taken as absolute. Gland affections merge into one another, and although a fairly marked case of either is distinct and obvious, yet there are cases which lie in the borderland between, and present characteristics which are common to each. Especially is this the case with scrofula and lymphadenoma.

Simple Adenitis.—Gland enlargement is tender and painful, with surface tenderness, and perhaps redness; if acute, is hard and surrounded by inflammatory exudation of the same character. The gland is ill-defined, merged in the general inflammation, and cannot be grasped as a definite tumour. Mischief quickly subsides, either by resolution or suppuration. A distinct and recently acting cause of irritation can be found. No scarring follows.

Scrofulous Glands generally have the pre-existing scrofulous throat, or enlargement follows a catarrhal throat set up by one of the exanthemata. Source of irritation is not generally so recent or definite as in simple adenitis. Glands feel solid, more defined than in adenitis, less so than in lymphadenoma; can be grasped, generally pushed about, are less fixed than in adenitis, more so than in lymphadenoma. Gland less tender than adenitis, more tender than lymphadenoma. Has lasted more than two or three months. Scars follow. Patient has scrofulous appearance or history.

Lymphadenoma.—Patient always anæmic, generally excessively so. Pupils widely dilated. Glands feel and look quite different from scrofulous glands; they are much more

numerous, are more rounded and regular in form, are not inflamed, nor are they surrounded by inflammatory deposit. They are very movable, and are to be found in more than one part. The disease extends as a blood disease, and not by continuity. Glands feel elastic and fluctuating. If enlargement of spleen, diagnosis is definitely settled.

It will be convenient here, before going on to treatment, to indicate the various physical conditions in which scrofulous glands may be found. As to consistency, we have the following varieties—1. Soft elastic gland growth without deposit or trace of inflammatory action. 2. Gland growth harder and less elastic; occasional patches of caseous or tuberculous degeneration; traces of inflammatory action. The degeneration may present a spotted or punctuated appearance, similar to, but not so defined as, miliary tubercle. 3. Glands hard and gland tissue degenerated, and generally caseous; correspond with dry gangrene. 4. Glands suppurating, either infiltrated with purulent matter and remaining firm, or caseous matter becoming liquefied, dissolved in pus, soft, and forming an abscess. 5. There is a form of necrosis of gland which happens when rapidly enlarging glands are the subject of active inflammation; sometimes the whole gland dies *en masse;* this form corresponds with acute gangrene. These cases are acute, attended with high temperature and symptoms of blood poisoning. There is every grade between this and the most chronic form. 6. Calcareous degeneration.

Then as to mobility: 1. Glands are loose, and can easily be hooked out by the finger, capsule included. 2. Glands fairly loose, but not sufficiently so to be turned out with the capsule. If, however, the capsule be divided, the gland substance can be slipped out of the capsule unbroken and perfect in form. The capsule in this instance is thin, and collapses. 3. Gland with capsule can be removed with occasional touches of the knife. 4. Capsule adherent, and requiring close dissection all round. 5. Gland capsule indistinguishable, involved in and blending with surrounding tissues and inflammatory material. Thus this capsule may vary from a gauzy film to the thickness of shoe-leather; the gland itself ranges from jelly to cartilage and from cream to chalk. The glands may lie loose or be absolutely fixed, and one may get a mixture of these conditions in the same case. Scrofulous glands affording infinite variety in their form, course, and duration, scarcely any two cases are exactly alike in all their detail. This variety calls for some modification in the treatment, but that treatment only can be successful which will fulfil two requirements—viz., to establish the general health, and to remove thoroughly and entirely the local disease. Firstly, as regards the general health, nothing does so much good as sea air, and plenty of it. The patient should be out of doors all day and in all weathers, and this applies to the winter as well as the summer. With this, generous diet, wine, cod-liver oil, iron and quinine, light, warm, woollen clothing, sponging and rubbing, sea-bathing, avoidance of fatigue and brainwork, amusement, plenty of sleep, large, airy rooms, and everything that tends to make life happy and comfortable. Drugs, except the ordinary tonics, are valueless; no drug will remove tuberculous deposit or get rid of a scrofulous gland that is once steadily established. I have never seen a single case of scrofulous glands cured by drug treatment. Small doses of perchloride of mercury will diminish scrofulous glands up to a certain point by reducing surrounding inflammatory deposit and improving the condition of the less involved portions of the glands themselves, but it goes no further, and I know of no other drug which will do as much; it will not remove scrofulous deposit.

Iodine and its compounds have from early times had a great reputation for absorbing scrofulous glands. How it got this reputation I do not know; perhaps because it is obtained from sea-weed, and sea-air has undoubtedly been found beneficial. I have used iodine internally in large quantities and in a great number of cases; I do not know if it is injurious, but it certainly does no good. Iodine externally in the form of paint keeps up irritation, damages the skin, and does nothing but harm. Iodide of iron has a great reputation; this drug is more prone than most tonics to upset the stomach, but I have found no other effect. Arsenic and sulphide of calcium I have also tried largely without experiencing any beneficial result. In fact, drugs, except general tonics, are valueless, and I think that anyone who has been in the habit of excising scrofulous glands and of examining them after removal must realise this.

The local disease can only be got rid of in one way, and that is by mechanical means; an opening must be made in the skin and the diseased glands either scooped or cut out. Injecting glands with various agents I look upon as an uncertain and dangerous proceeding, especially for those which are deeply seated. One of my predecessors at the infirmary adopted this plan many years ago, but it was abandoned as useless. Nature's method of getting rid of the peccant material by suppuration is a mechanical means; she washes it out by the aid of pus obtained from the gland itself and from the surrounding tissues, but she often leaves behind the stuff she wants to get rid of. It is a clumsy, tedious, and uncertain process, and, even if successful in the end, generally extends over several years. Besides, there is the risk of further infection from these glands going on all the time. That Nature takes a long time is quite certain; if one comes across an adult carrying marks of old scrofulous gland ulceration, the answer to the inquiry as to how long he suffered from the glands is generally the same—viz., "Off and on for years." I have operated in cases that have been extending over twelve, seventeen, and even twenty years.

(To be concluded.)

AN ESSAY ON THE

FUNCTIONS OF INDIFFERENT CELLS IN THE HUMAN ORGANISM.

By JAMES DICKINSON.

(Continued from p. 586.)

THE instances already given in support of the view that inflammation is a function designed to effect débris removal are insignificant in comparison with the striking instances which exist in the working of the normal body of the function of leucocytes as carriers. It is now generally admitted that the conveyance of food particles such as fat globules from the alimentary tract into the absorbent channels is effected by the agency of amœboid cells. The wide distribution of lymphoid tissue throughout the alimentary tract, and especially in the villi through which solid particles are chiefly absorbed, is of striking significance in this connexion. That the cells of the epithelial lining of the intestine play also an important part can hardly be doubted, since food particles have been seen in their interior. They cannot change their position, but it is quite conceivable that they retain sufficient of their old amœboid powers to enable them, first, to lay hold of particles; secondly, to transfer them through their substance; and lastly, to eject them at their bases. All this could be effected by an intracellular amœboid movement, affecting only portions of, and not simultaneously, the whole cell. Moreover, it seems to me highly probably that the prime agent in first seizing hold of particles is that striated border which has wrongly been called cuticular. It has been suggested (Quain's Anatomy) that this is the morphological equivalent of the bunch of cilia which some other cells of the columnar type possess. The suggestion is valuable. Cilia are filaments of sensitively contractile protoplasm; the old amœboid contractility is retained by a certain portion of the cell for a definite object. It seems to me extremely probable that the striated border is not only homologous, but closely analogous to the bunch of cilia—namely, that it is a certain portion of the cell retaining the amœboid character to supply a need which is here obviously present. It is certain that the striated border is sensitive protoplasm and not "cuticle" as has been supposed—a supposition which might well keep the process of absorption shrouded in mystery.

In studying the amœboid character as it is exhibited by elements in the human body, it is interesting to observe that, while the character belongs *par excellence* to leucocytes, some cells retain a modified degree of it, some have even specialised upon it, while others that have recently lost it are capable under suitable conditions of recovering it. Thus, if the above views are correct, the epithelium of the intestine exhibits a modified amœboid character consistently with retaining its connexions and serving its epithelial function of forming a surface. Again, in the

process of digestion, it is observed that liver cells become loaded with particles, fatty and otherwise, and it is difficult to understand the fact unless we credit these cells with a sufficient power of changing their form to enable them to seize upon particles brought within their reach. That some cells have specialised on the amœboid character is seen in the so-called myeloplaxes—those giant cells which are undoubtedly concerned in the absorption of bone. They occur in a tissue distinctly lymphoid—i.e., the marrow; and one is strongly tempted to regard them as leucocytes that have given up their migratory in the special cultivation of their devouring habits. And one is the more inclined to this view from the fact that leucocytes, under some circumstances, are capable of becoming individually hypertrophied. It would seem that giving themselves wholly up to absorption and the destruction—i.e., digestion—of what they absorb, their protoplasm grows under the stimulus of the excessive nutriment they ingest, and division, which is the check upon undue growth, falling also into abeyance, or at most affecting the nucleus, they become the giant cells we are familiar with. Even in circulating blood leucocytes are found possessing several nuclei (Quain). Lastly, just as leucocytes may be observed under suitable conditions to take the first step in organisation, and form a connective tissue, so connective tissue cells may, under the conditions that are present in the early stage of inflammation, undergo retrogressive changes, and resume their old amœboid character.

Crediting the epithelium of the intestine with the limited amœboid powers I suggest, the process of food absorption becomes simple and intelligible. But at this point a question invites answer in order to complete the account of the part played by leucocytes. How do the particles conveyed by leucocytes into the absorbent channels become set free again as we find them in the "molecular basis" of chyle? It is stated in Schäfer's Essentials of Histology that the lymph corpuscles, having reached the absorbent channels, there undergo disintegration, and so discharge their contents. In the same book is figured a preparation taken from the intestine of a rat killed during digestion, and leucocytes are there seen losing their distinctive outline and becoming blended with the fluid and granular contents of the lacteal vessel. This observation prevents us from resorting too readily to the more simple explanation that leucocytes set free the particles by amœboid activity. Indeed, the only reason that suggests itself why leucocytes should ever give up particles they have been at pains to take into their bodies, is that the particles turn out to be indigestible or injurious. Certainly it is equally obscure why they should undergo disintegration, but there is no gainsaying an observed fact. However, one cannot help suggesting the qualification that the disintegration must be merely a cell disintegration, and not a disintegration of the protoplasm itself; for it is hard to believe that the absorption of every particle or so is to cost the life of a cell. Is it not conceivable that the cells disintegrate and the protoplasm continues living and capable of reaggregating into a cell mass as in the case of the "free-cell formation" which is observed in plant life?

Not to dwell longer on this matter, I may just point out the broad fact that is beyond controversy—namely, that leucocytes do in the normal process of absorption of food serve a striking use as carriers of material. Another striking instance is seen in the transfer of particles from the air cells of the lungs to the neighbouring lymphatic glands. Leucocytes are admitted to be the agents by which this is effected. Doubtless, in this they are serving a definite function—probably that of removing irritating particles from the delicate surface of the air cells. Natural stomata exist which open from the air cells into the lymphatic spaces of the pulmonary tissue, and, since amœboid elements are commonly found free in the air cells, the conclusion seems to be fair that they have normally ingress and egress through the stomata for the purpose of keeping the air cell clear. But probably a more serious duty is theirs than the removal of mere inorganic particles, and that is to seize upon and kill by intracellular digestion all micro-organisms that present themselves in inspired air. This view has been advanced in order to explain the general immunity from those specific diseases whose micro-organisms are widely distributed, and I do not doubt that this is the most important function served by the diffuse adenoid tissue in the respiratory tract. A similar protective function must be added to the absorbent function served by adenoid tissue in the alimentary tract.

Enough evidence has been brought forward that the picking up and carrying off of particles is an accomplishment of leucocytes by no means assumed for the delectation of microscopists, but natural to them wherever they may be, and serving indispensable uses in the normal economy. Surely it can no longer be doubted that this is the use they serve in inflammation. This view renders it at once intelligible why the entrance of micro-organisms into a wound should be associated with suppuration. Not only must they be destroyed and removed as foreign bodies specially inimical to local repair, but they must be prevented from gaining an entrance into the organism at large. Thus pus cells are but leucocytes that have died at their post in the execution of an essential duty. There is a disease known as leucocythæmia, of which the striking anatomical feature is an enormous increase in the number of leucocytes in the body, evident both in the naked-eye appearance of lymphatic tissue and in the microscopic appearance of the blood and lymph. In the subjects of this disease repair of wounds is very imperfect, and attempts at organisation of inflammatory exudation abortive. At first sight this would appear to be inconsistent with the present view of the usefulness of leucocytes in inflammation. But it is found that the vitality of leucocytes in leucocythæmia is particularly feeble. They do not exhibit amœboid movements or any of the active characters of leucoytes in healthy organisms. By the light of this observation the failure of tissue repair in the subjects of leucocythæmia is seen to be consistent with the view under consideration and confirmatory of it; while the occurrence of an excessive number of leucocytes as a feature of the disease suggests itself as an effort to make up by numbers for individual incompetence.

But granting that inflammation is a useful process that meets a pressing need, why does it take place? How do the leucocytes know that they are in request that they offer themselves so promptly? We have seen what is the need that exists when inflammation occurs; we have seen how inflammation meets that need; it yet remains to be seen how an injury while causing tissue-damage gives rise to a process which leads to repair of that damage. Michael Foster, in his Text-book of Physiology, describes the vascular phenomena of inflammation, but says not a word to imply that any active part is played therein by the leucocytes themselves. He treats the bloodvessels as the sole agents in the matter and offers his picture of the process as an illustration of some mysterious power he believes the vessels to exert over their contents. We may remind ourselves that the phenomena are mainly these. First an increase in that normal distinction between axial and plasmatic layers, the leucocytes loitering in the area affected and gathering along the vessel walls, while the red cells pursue their axial course. The leucocytes continue to gather till they are thickly aggregated upon the lining of the vessels. Then little processes appear upon the outside of the vessels belonging to leucocytes within. These processes grow while the leucocytes to which they belong diminish till there is complete disappearance from within and reappearance without. Then their connexion with the vessels becomes severed and they are at large. Now Foster says, and I quote his words: "It seems probable that the aggregation in inflammation of the white corpuscles upon the lining membrane of the vessels is due to a special attraction which the bloodvessels exert on the white corpuscles." A more satisfactory explanation is that the leucocytes are themselves the active agents and that the walls of the vessels, though essentially concerned, may be compared to the damaged bars of a prison that allow a captive to get out. Is it to be supposed that leucocytes lose their power of independent locomotion while they are circulating? Certainly not. What is so noticeable in their demeanour as they are seen coursing along in the blood stream? It is that they are not carried helplessly like the inert red cells, but exhibit some independence, feeling their way, as it were, along the wall and stopping now and again. This has been accounted for by their "peculiar adhesiveness." But why not account for it and for their peculiar adhesiveness at the same time, by crediting the white cells with some independent agency in the matter? Their behaviour within the bloodvessels is so extremely suggestive that they are trying the walls of their prison as they proceed, and seeking a way out. What, then, more natural than that when they come to a place where the vessel wall is damaged they should succeed in their endeavour? I use the word "damaged" provisionally without in the least intending to describe the

change which the vessel wall has undergone. Whether injury be the direct cause of the change, or whether (as seems probable in cases where inflammation has supervened without traumatism) there is some obscure physiological connexion between the cells and the bloodvessels of a tissue, we are fairly safe in describing that change as "molecular." At all events, it probably means some impairment of vitality, and one can distinguish two ways in which this would favour the escape of leucocytes. For impairment of vitality involves loss of elasticity, which must lead successively to increased resistance to flow, dilatation, and stagnation, which last obviously encourages any attack the leucocytes may attempt upon the wall. Again, loss of elasticity must involve relaxation of any stomata which the leucocytes may have discovered or have made by the insinuation of pseudopodia. Such a view of the process of migration is more conceivable and rational than one which refers it "to a special attraction which the bloodvessels exert on the white corpuscles." For this entails certain difficulties. It is, in the first place, not easy to see why injury should suddenly inspire the wall of the vessel with a special attraction for the white cells, selecting them, moreover, in preference to the red. One has next to get over the difficulty that the leucocytes get over when they are half way through, for it might reasonably be expected that a "special attraction" would hold them fixed in this awkward position. Lastly, we cannot but wonder what becomes of the "special attraction" when the leucocytes, having effected their passage, break away from the vessel.

I said in the early part of this paper that I interpreted inflammation as an exaggerated manifestation of a normal function, and that when we had determined the function of inflammation we should have found the clue to the, or at all events a, function generally served by leucocytes. We have seen leucocytes serving special functions in the alimentary tract, and in the respiratory tract as carriers and scavengers—functions both allied to what is believed to be the function of inflammation. But in the respiratory and alimentary tracts the functions of leucocytes are special and concern only those two situations. Inflammation, however, may occur anywhere, and what has now to be shown is that, no matter where it occurs, it is an exaggerated manifestation of a process normally going on at that spot—that is to say, it has to be shown that the migration of leucocytes from the vessels into the tissues is a constant physiological event, and that the function served by these leucocytes is the removal of cell débris. It may easily be proved that leucocytes habitually migrate from bloodvessels. Remembering their roaming habits, and remembering their demeanour in the bloodvessels, and remembering the stigmata that exist in capillary walls, and the power, further, that leucocytes possess of insinuating pseudopodia, and then flowing along the narrow isthmus so formed, we seem to have good reason to believe that migration may normally occur by such a mechanism. But we have absolute proof that it does occur. In course of digestion the number of leucocytes in the blood increases considerably. This is understood to be due to the vigorous lymphatic circulation which accompanies absorption at the lacteals, leucocytes being thereby carried into the veins of the neck from the lymphatic system where they chiefly abound. But some hours subsequently the number of leucocytes in the blood is found to be the same as it was before the meal. Rejecting the view that leucocytes are split up in the blood to provide food for the tissues, the conclusion is inevitable that they have escaped from the bloodchannels. The only ways open to them are back into the lymphatics against the current or out through the vessel-walls into the tissues. We need hardly consider the former alternative and are driven on to the latter.

(To be concluded.)

SOCIETY OF APOTHECARIES OF LONDON.—The results of the examination in Arts qualifying for registration as medical student, held in the Hall of the Society on Sept. 6th and 7th, have just been published. There were 155 candidates, and from the pass-list it appears that 3 were placed in the first class, and 18 in the second class, and 114 were certified as having passed in some subjects, but not in all. The next examination will be held on Dec. 6th and 7th, 1889, and again on March 7th and 8th, 1890.

A UNIQUE CASE OF FRACTURED EXOSTOSIS.[1]

BY THOMAS H. MANLEY, M.D.

THE case on which this article is written presented many features quite peculiar to itself, seldom heard of, rarely dealt with, and probably seen only occasionally even in the practice of those of very extensive experience. For, being of an extremely obscure nature with respect to its real character, for the many and unusual coincident pathological conditions, the odd and singular form of this bony excrescence, as well as the surgical measures adopted for its removal, it would seem to stand nearly alone.

Our patient was a young Italian, nineteen years of age. He had been in America two years, and had always enjoyed good health until a little more than a year previously, when he said he commenced to feel slight pains along the inner side of the leg, which, though severe occasionally, at times would annoy him but very little. During one painful spell he consulted a physician, who treated him for rheumatism. He had finally become so accustomed to the difficulty that it gave him little thought, till one day, while working with other labourers in excavating a drain, in making an effort to raise a heavy piece of stone he suddenly became weak, and had to desist from work. This weakness was followed by chills and pain all over the left lower extremity. After remaining away from work a week he returned. He now found himself lame and only able to continue at his occupation with considerable discomfort. He soon had to stop again, when he applied at the hospital for admission. This was sixteen days after the mishap in the trench, and about a year from the date that he first felt anything wrong on the same side. He walked to the hospital—about half a mile—and readily ascended a couple of sets of stairs without any assistance.

Condition on admission.—He was extremely weak, very much emaciated, very pale, with the look of one in much distress. How he was able to drag himself to the hospital was a marvel to all who saw him. His pulse was now nearly 120 beats per minute, with a temperature of 101°. No evidence of organic disease was found. On being stripped of his clothing, the left lower limb was seen to be greatly swollen from Poupart's ligament down to the knee, mostly on the inner aspect; though the outside was also considerably distended, but to a lesser degree, in the same direction. Now, the question was, What could this great increase in volume be attributed to? Was it a hæmatoma, an osteoid-sarcoma, a simple serous accumulation due to blocking of the deep femoral vein; or was it an accumulation of pus? As there was no history of injury, either recent or remote, we were led to eliminate rupture of a vessel as a cause; and as there was good circulation in the vessels of the limb lower down, which would not be the case if directly dependent on vascular lesion, we were led to believe that pus was present. This was decided beyond question by the exploring needle. It was clear that there was an enormous formation of purulent matter; but when we came to consider the question as to its probable origin and exciting cause, we were obliged to hesitate. There being nothing pointing to traumatism, and no trace or signs of vertebral disease, and the chief symptom being of recent date, it was rather difficult to reach a definite conclusion. Had he been laid up any considerable time in bed, it would have led us to suspect an abscess of the psoas variety, or that there was bone disease involving the hip-joint or upper part of the femoral shaft; but with a man walking into hospital unaided, the existence of any of these lesions seemed impossible. Regardless, however, of what or where the real seat of this pus was, the indications for treatment were very plain. The first was to open into the matter and drain it away; the second, to endeavour to find its exciting cause, and if practicable remove it. It was hoped that with a free vent for the abscess and free irrigation of the parts with some mild non-irritating antiseptic solution, our patient would soon recover; remembering that for some cause not yet well understood, especially in erysipelas, pus will form in enormous quantities in the deep loose areolar tissues; and also, in what was formerly designated

[1] Read before the Amer. Med. Assoc., Newport, R.I., June 25th, 1889.

cold abscess, in those of strumous taint. Our patient consented to permit us to make an opening, but not do any severe operation. To do anything else at that time in his condition would have been unjustifiable.

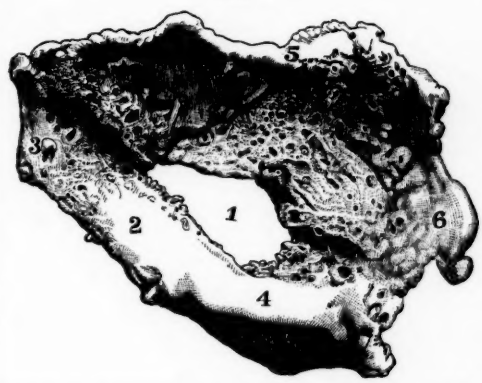
After putting him under an anæsthetic, a free incision was made over Scarpa's triangle, at its apex, carrying it downwards about four inches. Immediately on division of the skin, an immense tense sac bulged into the opening made by the scalpel. Now it was evident that something of a most unusual character was in our way. Accordingly, with a view of making an opening large enough to manipulate and explore through, the incision was slightly enlarged upwards, and the superficial and deep fascia lata divided, separately with the scissors. The pus sac—the pyogenic membrane—was now drawn as far outwards as possible, and opened. Pus, of the consistence of cream, poured through the orifice. It seemed to come from every direction when pressure was made over the quadriceps tendon; over the popliteal space, the groin, the loins, the pubes, and even, when firmly applied, over the abdomen itself. It was at once evident that the accumulation had extended into and invaded all the adjacent tissues. In passing the fingers into the wound with a view of estimating the extent of pyogenic membrane, and the course it pursued, it was plain that it had insinuated itself above and beneath the floor of Scarpa's triangle; that it had displaced the sheaths of the hamstring muscles, pushing away from the bone the femoral vessels in the lower part of the thigh, and burrowing under the sciatic nerve so that it could be readily defined under the fingers. The pyogenic membrane was of the sacculated variety. It was very thick and tough; where the knife penetrated it seemed as dense as the integument itself. Following up along the inner border of the sartorius muscle in the lumen of the sac, I came to the horizontal ramus of the pubes, where an impediment was encountered of a kind which, for the time, completely baffled us to make out. It was lodged a little to the left of the centre of the pubic body. It seemed as large as, or larger than, the hand, of a sort of conical form, with its base downwards and its apex pointing upwards and outwards. Immediately over the summit of this cone passed the femoral artery, which transmitted to the fingers a distinct thrill with each pulsation. The artery was put on the stretch and lifted out of its bed, and deflected very much from its normal course by this body from beneath. The mass was distinctly but slightly movable. What it really was, whether a neoplasm of osseous formation growing from bone, or whether it was a fracture of the bone itself, or separation at its epiphysial junction with the ilium and ischium, perhaps attributable to congenital defect, was all conjecture. It was so deeply buried under greatly deranged and infiltrated tissues that its real nature could not be accurately made out. As the purpose for which we commenced operative procedures was partly accomplished—the removal of pus—and as we were under an injunction from the patient not to make an extended operation, we desisted from exploring any further. Drainage-tubes were inserted, and the whole put up in antiseptic dressings.

After putting our patient in bed and supplying every comfort at hand, time was permitted to study the case and devise some method by which an operation for the removal of this substance could be accomplished. I had decided not to undertake any further operation without the advice and assistance of Professor F. S. Dennis, the senior visiting surgeon, as I fully appreciated that there was a case before us of a kind on which we could get but little light, either as to its true character or the way to safely remove it, from the ordinary available surgical literature; it being one of those cases which now and again turns up in which we are thrown on our own resources, when we must depend on our own knowledge of the laws of pathology, anatomy, and our own ingenuity. He immediately improved after evacuating the pus. The temperature went down to normal, and for a few days he gained strength. Unfortunately his improvement was but transient; pyæmia began to manifest itself, and we found that no longer could delay be permitted.

What we had to remove, and how to do it, were the questions we now had to face. It seemed hardly credible that it could be the fractured or separated pubic bone; for it would seem, with the point of attachment and origin of leverage of all the adductor muscles and those composing the inner hamstring broken off, that locomotion would be impossible, though we all well know the remarkable compensatory action which certain groups of muscles possess. It did not seem impossible either that, with the gluteal muscles, the rectus femoris, and those coming from the pelvis, the head of the femur might be retained firmly in position, even if little motion could be executed. Professor Dennis advised and assisted me in the operation for excision. I may say that without his generous aid and wise counsel we would very likely have failed in our efforts. How were we to proceed in the displacement of this huge mass without either opening into the parietal peritoneum or impairing the integrity of Poupart's ligament? To touch the peritoneum with the taint, infecting almost everything in the region of the wound, would be certainly fatal. The great artery of the lower limb with the femoral vein were in danger of laceration or division, as we would be obliged to draw the mass from under them and effect their detachment in our manipulations. After very carefully, in anticipation of operation, opening down in this region a few days previously on the cadaver, and considering the different routes by which it seemed most practicable to reach the formation and bring it through, I found that there was but one way in which it seemed at all possible to remove it, without sacrificing very important structures; and even here it was discovered that we must divide the anterior crural nerve, and possibly be obliged, if the mass was of great size, to divide or crush it with the bone pliers and remove it in sections.

With the plan of enucleation well fixed in mind, and everything in readiness, so that we might deal promptly and effectually with any unexpected accident, we commenced an operation for a condition of which I can find nothing exactly similar in surgical history. The original incision was extended along the sartorius, till its origin was reached, when the psoas muscles were found and drawn well over, towards the acetabulum, from the vessels which passed directly over them. Now these muscles were divided in a vertical direction, their sheaths opened and their fibres separated. We found that they in the process of time, from excessive pressure from below, had thinned and spread out, like a broad ribbon, and seemed to extend over the greater part of the osseous body underneath. This step of the operation was attended with considerable danger, and the greatest caution had to be exercised. The retractors were now inserted, and the bloodvessels pressed gently towards the symphysis, and I was enabled to pass my index-finger down on to what I found was bare denuded bone. By introducing the periosteal elevator, and detaching the more or less adherent fleshy tissues, I was able, after a long fatiguing effort, to remove the cause of all the trouble; the pubic bone, sure enough. (Fig. 1.) At least, at first sight, its resemblance was so close to that part of the skeleton that we could not well liken it to anything else. It was structurally identical to this portion of the skeleton. It had the same shape, the two rami, the ischium attached or fused with it below; the tuber, to which all the hamstrings are inserted, preserving its normal contour and position, the obturator foramen being of the same oval outline as usually met with. When this bone then was raised from the pelvis, we certainly concluded that it had separated from the acetabulum, either through disease, faulty original development, or from an acci-

FIG. 1.



dental fracture. In the course of removal there was unavoidably considerable mutilation, and it was found impossible to proceed without the bared lacerated muscular tissue coming in contact with the extensive purulent material, which seemed to issue from every direction. In the meantime everything was done to avoid the contamination of healthy parts. The bichloride solution was freely applied for the purpose of washing out and neutralising any septic taint which might linger in the deep tissues. Drainage-tubes of various shapes and sizes were introduced, and counter-openings made, so that the whole tract of the wound could be effectually treated. The usual antiseptic dressings were applied, and the patient returned to the ward. He rallied very slowly, the effects of the shock persisting a considerable time. The morning following the operation he was much improved, the temperature being but slightly elevated, though the pulse remained weak. He seemed to gain until the fourth day, when pyæmia again declared itself, with well-pronounced symptoms. Meanwhile every day the wound was dressed. Pus came away in enormous quantities, soaking through all the many layers of antiseptic cotton and gauze which enveloped the wound. After the fifth day it became evident that we must lose our patient. He now had a profuse, uncontrollable diarrhœa, with exhaustive sweats, and was in constant pain when not under the influence of opium, and on the evening of the tenth day passed quietly away.

It fortunately so happened that we were permitted to make an extensive and very careful examination post mortem. Strange to say that, notwithstanding his severe illness, he had emaciated but little. A most casual examination now showed conclusively that though we had removed a pubis and ischium, the whole of the pelvic skeleton—the whole of the left wing of the ploughshare, as anatomists designate this bone—remained. If one had been removed, it was clear that another remained. Turning our attention to the limb, to the line of incision, we found that though the silk sutures still held the edge of the wound together, there was no attempt at union. Everything was pus-soaked. Between the different layers of fascia and the muscle sheaths, extending down to the terminus of the biceps, a large, broad, thick, pyogenic membrane was now to be seen, with its dense tough walls, externally adherent to everything which came in its way—at one point, reaching out and engaging the sheath of the large vessels, and at another firmly adherent to the floor of Scarpa's triangle, pushing up and away from it the rectus and fascia lata. In the thigh it had very many well-defined diverticula, which seemed to have bored themselves into and through everything which came in their way. The internal lining of this sac was smooth, though with an irregular surface, not altogether unlike the serous lining of an artery. Finding that it had crowded the various groups of muscles in the ham in every direction, we now followed it towards the body, presuming that its limit would be reached at the seat of the original trouble, on a line with the pelvic brim; but we found the pathology of this case as inexplicable and puzzling as its clinical history. Arriving at the crural arch, we stopped. Now, after removing the pelvic viscera, which we found healthy, we continued our exploration upwards. This strong leathery pus sac, after entering the pelvis to the inner side of the pubic bone—its horizontal ramus,—was now traced upwards, behind the peritoneum, and between the psoas muscles, up to their very roots, dividing in its upward course into two sacculi, which penetrated the sheaths of these muscles and ended only at their origin; in fact, when it seemed it could go no further. Taking care that there was no necrotic action going on in the bodies of the lumbar vertebræ to account in part for this pus production, they were minutely examined, but with negative results. In the pelvis, as in the limb, diverticula extended in nearly every conceivable course. Pus was found to ooze through the tissues in the line of the femoral vessels, in the opposite limb, along the rectum, and under the floor of the bladder. We now came to the outer and anterior wall of the bony pelvis, in search for the part from which this osseous formation had come. Just anterior and above the acetabulum, directly beneath the anterior inferior iliac spine, and under the iliac and psoas muscles, was a broad, rather circular-shaped stump of bone, showing evidences of recent cleavage. This stump or stalk had a broad regular base rising directly from the horizontal ramus. Its fracture was about half an inch from the pectineal line, and took an irregular oblique direction. It was entirely stripped of periosteum till the body of the pubes was reached, when this covering was intact. I now removed the entire os innominatum. The body being not yet matured, the sacro-iliac junction was easily divided with the knife, and I here exhibit it. (Fig. 2.) Nothing of special interest was found in the organs except the lungs, where the typical infarctions of pyæmia were seen in abundance.

We had at last, after many conjectures and aimless gropings, been able to determine without question, by indisputable proof, what our patient's affection was; but, alas! we were unable to save his life. Now that death enabled us to clear up all doubts, we come to that part of his history replete with interest and well worthy of a full consideration. I refer to what the probable origin of this formation was, which though possessing many of its characteristics in its clinical history was not a neoplasm. While being a mere typical, innocent substance by its situation and an accident, it ultimately became a cause of death. I think we may ask ourselves, were its true nature, shape, and position known, and the treatment accordingly adopted, might not this young man's life have been saved? For some time after my patient's death I revolved in my mind the causes which might have acted towards giving this osseous outgrowth its strange similarity to the pubes. I reasoned that it could not be regarded as a merely fortuitous development, that it could not have so adapted itself by pressure, exerted through muscular action. While quite perplexed to account for it, and nearly despairing of ever being able to give a rational explanation for its existence,

FIG. 2.

I one day, about a month after the death of the patient, was narrating a few of the interesting features of the case, and showing the specimen, when my friend Dr. James O'Brian of New York, on getting the bone in his hand, pronounced it "a genuine case of reduplication of the os pubis." He further said, "it was his opinion that the production, this precocity of nature, was of congenital origin, that it had existed since birth, and that it was only when perhaps disintegrating from imperfect nutrition it gave way and became a foreign body." My friend O'Brian's opinion of the matter struck me as so simple and rational that it could hardly be questioned. If we can have supernumerary fingers, members, and organs, it seems quite reasonable to suppose that the same freaks of nature may extend to the pelvic bones. It occasioned trouble only when detached; when it became a source of irritation. Had we clearly comprehended its nature at the outset, its management might have resulted in greater success. I believe if we had aspirated off the pus a little at a time and kept the cavity of the sac well aseptic, besides watching his general condition and keeping him well nourished until his strength was restored, we might have removed the reduplication or exostosis with every prospect of success. But in opening up a way to bring the bone through healthy tissues were unavoidably infected. The pyogenic membrane was a most remarkable pathological production, both for its extent and thickness, as well as beautifully illustrating the conservatism of the economy

in placing this barrier between the sound and diseased parts; covering, confining, and limiting the diffusion of pus. It, besides, showed how completely and effectually purulent material may be walled in without there being any pronounced symptoms or serious constitutional disturbance present to indicate its existence. It may, I think, be asked in closing, as this was a benign formation destitute of any malignant elements, if left alone might not the result have been different? I think it might. In time this diffusive abscess would no doubt have pointed, thinned the skin in its course towards the surface, formed firm adhesions in its way through, and opened spontaneously without in any way contaminating healthy tissues, the sac gradually undergoing contraction, thinning, and absorption, until at last the economy, having no furthe use for it after the exostosis had come away and thrown off the last vestige of matter it contained, would quickly and entirely dissipate it. As it was, every reasonable precaution was taken, but owing to the obscure character of the condition existing a correct diagnosis was nearly impossible, and we were obliged to deal with difficulties as they arose.

New York.

REMARKS ON

THE WANT OF KNOWLEDGE OF MENTAL DISEASES SO PREVALENT IN THE AVERAGE MEDICAL MAN.

BY GEORGE THOMPSON, M.D.

I WOULD gladly adopt the suggestion made in the editorial annotation on "Bromomania," contained in THE LANCET of May 25th, to substantiate the charge which I make in a former article (on the "Hospital Treatment of the Insane") of ignorance on the part of medical practitioners of the ordinary diagnosis and treatment of insane persons, but for two reasons: the first being that I should be compelled to fill many pages of THE LANCET with matter which would not interest the general reader; and the second, that I should empty the coffers of the treasury of this journal by the number of actions at law which its proprietors would have to meet. I will therefore confine myself to a recital of my very own experience of the facilities which were at my disposal as a student in medicine for learning anything whatever about insanity. There is no law which would enable me to bring an action for libel against myself, and so I proceed to my task heedless of results.

I passed through the usual curriculum, and obtained the diploma of M.R.C.S. in April, 1867. Up to that date I had never had the subject of insanity brought to my notice, except in this way: the lecturer on forensic medicine, the late Dr. Pyemont Smith, kept a very select private asylum at Ilkley, in Wharfedale; but he never mentioned the subject in his lectures. A fellow-student and I (we were both medical superintendents in a very embryonic stage, but we did not know it) agreed to ask Dr. Smith if he would allow us to see his asylum. This request he most courteously granted, and fixed the day. We went, and found the asylum was a fine old mansion high above the Wharfe, and commanding one of the loveliest views in the world. It was licensed for fifteen patients, and that was about the number we saw. Some were sitting or lolling on the terrace, some reclining in chairs in the rooms, and one was in bed. Dr. Smith, most properly, never said a word about the patients (private asylum doctors never do); but I have never forgotten that first lesson, which taught me that insanity, like (as Lytton says) love and death, is a terrible leveller. The patients were all of the higher class, probably persons of good position from Leeds, Bradford, and other towns near. They were most decidedly of the class which is called "quiet" and delights the heart of every private asylum keeper, for they give so little trouble, and are therefore proportionately profitable. I have never seen such a sight since—such wrecks of humanity; I daresay it was the novelty of the scene which struck me. As I think of that sight at this remote period of time, I cringe when I think how the acute cases which now are under my treatment may pass into secondary dementia, because of our frequent helplessness to avert the onset to such a state. That was the first and only lesson I had when I was a student.

But after I became M.R.C.S., and before I joined the staff at the West Riding Asylum, I had another lesson which was equally striking in its effects, though in a different way. I was attending a labour. The two women present to assist were talking, and this was the dialogue: "What became of Sally Jones?" "Oh! she went to Wakefield Asylum." "What happened to her there?" "Oh! she soon died." "Why did she die?" "Oh! she got so bad that they put her between two feather beds, and six keepers sat on her and smothered her." Of course, I sat with the usual gravity of manner and made no remark. The lesson I learned was that there still prevails an idea that the inmates of asylums are done away with. However, I cannot but admit that that would be an excellent way of avoiding "secondary dementia." But, then, I was in possession of a diploma, which I had but to put on the Medical Register to become "duly qualified" in every sense to join in a conspiracy, as has been playfully (I hope) suggested, to deprive a fellow-creature of his liberty, perhaps for life; and this was the amount of teaching which had by chance been apportioned to me. Now, what was the value of that knowledge to me, who at any time was equally qualified with other average men to give an opinion from "facts observed by myself" and from facts "observed by others"? If the examinee threw his arms in the air and declared that he was a windmill, or that the world was a ship and he was the captain, I might safely have said that he was insane, if he was not shamming insanity. But lawyers say that any man with common sense could say as much. And I think the lawyers are right. But in how many cases does the man not throw his arms about? and then, where does the examiner, as ignorant of insanity as I was, come in? I have heard of a case where the one "fact" was "Reads the Bible"; and frequently see such as "His speech is clipped," "He is awkward in his gait." These are physical defects no doubt, often of serious import, but they are not necessarily facts indicating the inability of the individual to manage himself or his affairs.

But to bring this paper to a close, I think it will be admitted that there is no royal road to the knowledge of insanity. It cannot be learned from books; it must be learned from a "master." Could a boy be trained to be a carpenter by reading books? Of course not. And where is the difference? I had never heard the term "general paralysis" before I went to Wakefield, and I do not hesitate to say that had I read all the books that ever had been written on the subject I should never have got a bit nearer being able to distinguish a case had such a one come before me in private practice. The person who wishes to understand anything about insanity must learn it under a master and must live among it. In many cases the diagnosis is a matter of physiognomy—a *tactus eruditus*,—a knowledge of which can only be got by constantly seeing such cases. A member of my family, who has never had an official or other connexion with any asylum, can look down at the patients at the church or at the dance, and, with unerring precision, point out every general paralytic in view of her. This comes from frequently seeing them. Now a man, even with ever such high medical qualifications, might examine (say) a hundred cases of alleged insanity in a year, among which there would be fifteen or twenty general paralytics, and he would not distinguish one of them, and he might go on for twenty years and he would be in the same condition of ignorance at the end of that time. I cannot remember that I have ever known a case of that sort to have been diagnosed before admission to the asylum. Once a medical man kindly wrote to me about one, and said he thought the patient was suffering from "softening of the brain," and that he had been treated with forty-grain doses of bromide of potassium three times a day, which had "quietened" him, and advised me (how kind!) to continue the treatment! He had, indeed, "quietened" the patient: he had expedited a "desolation" which he mistook for a "peace."

Stapleton.

RABIES.—The number of dogs in England officially reported during the week ending the 14th inst. as afflicted with rabies was 8, against 9 in the previous week. They were all killed. The distribution was as follows: Surrey, 2; East Sussex, 3; West Sussex, 1; and York (West Riding), 2. No cases were reported from London. One horse suffering from rabies was also killed during the week in the West Riding of Yorkshire.

ON ONE FORM OF PUERPERAL ECLAMPSIA.[1]

BY WALTER T. COLMAN, M.R.C.S. ENG.,
FELLOW OF THE OBSTETRICAL SOCIETY, LONDON; CONSULTING SURGEON TO THE HOSPITAL FOR WOMEN AND CHILDREN, BRIGHTON, SUSSEX.

THE present paper is designed to illustrate the theory of the cause of a form of eclampsia puerperalis—viz., that due to sudden and forcible extension, and consequently stretching of the cervix uteri, thereby inducing convulsions, independently of the albuminous factor, which latter, with the majority of authors, is a *sine quâ non* of the disorder. I am wishful now to contribute a mite of assistance in forming a proper classification of such conditions of the system, and *a fortiori* the most applicable and proper treatment for each division.

The first impression given me of the close connexion between puerperal eclampsia in one form and violent stretching of the cervix uteri occurred in a pluripara, who had had more or less constant hæmorrhage for ten weeks previously to the termination of the full period. She was not my patient, but I was asked by her medical attendant if I would assist him in dilating the cervix, which was very rigid and unyielding, to an extent which would permit his performing version. After two hours' perseverance I succeeded, by careful manipulation with my two forefingers and thumb of the left hand formed into a cone, in opening the os to the size of a circle somewhat larger than a half-crown piece. My friend returned, and, having concluded that he could pass his hand through the aperture, commenced the operation; but as he forced his way through the cervix into the uterine cavity, the patient had one tonic convulsion and died there and then, without rallying in the slightest degree, although galvanism and every restorative at hand was used as promptly as possible.

The second case I had under my own care was that of a primipara about twenty-two years of age, florid complexion and fair, who was in labour many hours with violent uterine pains, but whose cervix was most resistant and cartilaginous. I watched my patient for a very long time, but the neck seemed as if it would not yield. I had not my forceps with me, but having determined to apply them—the propriety of which treatment I now doubt,—I ran to a friend who lived close by and borrowed his instruments. I was not absent more than ten minutes, and on my return I found the head pressing on the perineum and the patient in violent convulsions, which I learned came on a few minutes after I had left the house. Chloroform was given at once, and the delivery accomplished in a very short time instrumentally. She remained in a semi-apoplectic condition the whole night—viz., for about ten or twelve hours,—and when I visited her the following morning her senses were beginning to return. She did well. In this case I must say I certainly anticipated convulsions from the previous jactitation, delusions, and incoherent talking, and other premonitory symptoms which were present. Had I administered chloroform there and then instead of rushing for instrumental aid, I believe I should have saved my patient from the dreadful peril of eclampsia.

My third case is that of a pluripara, who aborted at the fourth month. The following is the history. Mrs. P——, aged thirty-four, a woman of florid complexion, dark hair and eyes, and excitable temper. Says she had three children born alive, the first by instrumental means, and the youngest came into the world naturally sixteen months since. Her periodic times returned seven months after delivery, and continued monthly up to January 10th, when the flow remained on her for three consecutive weeks. She dates her conception soon after the termination of the discharge. She said she was very sick for the first month or six weeks, but not so much as usual. After her primary confinement she menstruated every month during lactation; but it began at the seventh month with her second and third confinements. She now considers that she has been impregnated four months. After an outing in the country ten days since, and a great deal of walking and pleasure seeking, together with a hurried journey to catch the train, she found on arriving home that she had a show which continued daily, but no pains, with the exception of those of menstruation, until last night at 10.30, when their character became more violent and severe, and were followed by a discharge of liquor amnii and some little hæmorrhage. Subsequently the ovum came away uncovered by membrane and placenta. Expulsive efforts caused much flooding, and she had fainted six times before I had visited her at 5.30. Next morning her condition was one of great bloodlessness, being extremely blanched and suffering from collapse and almost pulseless. On examination per vaginam I could feel the os to be occupied by a fleshy mass, which I endeavoured to remove by passing my forefinger round and dilating the rigid cervix, but without success, and with the effect, to my great surprise, of producing eclampsia, beginning with fainting, fixing of the eyeballs, and slight twitchings of the angles of the mouth, and followed by flushing of both cheeks. In fact, the common signs characterising *petit mal*. I discontinued my exertions at once, but on making another attempt in about a quarter of an hour there was a recurrence of the symptoms, and in my various trials to remove the placenta I found a recurrence of the eclampsia also again and again as often as I stretched the rigid cervix. I at last succeeded in detaching the whole substance of the mass and brought it away. Her own description of the attack was that it came on with a singing noise in the ears as of a kettle boiling, and she herself seemed to be some little time in it, although, as far as I was able to judge, it did not appear to last more than a minute. Seen on the following morning, May 21st, says she had a good night, but awoke with pain in the occiput. Has generally had headache the third or fourth day after delivery. Diet, milk taken by the stomach giving ease to the pain, which latter diminished as evening approached.—May 22nd: Bowels relieved; more restless. Movement of head causes a rushing sensation coincidently with cardiac palpitation, the rushing coming on at every throb of the heart, the two seeming to be cause and effect. Lochia very little in quantity. Tongue pale and flabby. Face anæmic. Diet: Chop, bitter beer (four ounces), port wine (three ounces). — 23rd: Passed a very wakeful night, and has much headache, which, as usual, is worse in the morning after the night's rest, and disappears gradually as evening is nearing. Up to the present time she has been taking acetate of iron and chloric ether. I now stopped all stimulants and solids, and ordered simply milk and beef-tea to be given.—24th: No headache, and slept well. The five-grain compound rhubarb pill taken last night had produced an action of the bowels, causing great fainting and pain as motion passed through the rectum. From this period there was gradual convalescence under the ferruginous treatment, combined with the bromide and chloral, &c. I can recall to mind two or three other cases typical of this form of puerperal eclampsia, although I regret to say I have not preserved the notes.

Now two of the three cases I can vouch for not having an albuminous condition of the urine after labour, and if they had previously they certainly did not show any outward indications of the malady. In my first case, which proved fatal, there did not seem to be any of the usual uræmic appearance of Bright's disease, and looking at the state of my first and third cases as closely allied in their character and form, and differing only in degree of cause and effect, and stage of pregnancy, the two important factors in causing the fits were anæmia and stretching of the cervix. In Mrs. P——'s case I could produce eclampsia at will. The second case was one which had a vascular condition, the reverse of the others with the excito-motor system at a very high standard of tension and the violent uterine efforts driving the head through a rigid cervix forcibly and suddenly conveyed the shock to the higher nervous centres and caused the convulsions. As Dr. Barnes says in his lecture of April 12th, 1873, the healthy correlation of resisting power of irritation and nervous energy were not harmoniously preserved, allowing all to work on an orderly circle. Dr. Lever asserts that albuminuria always induced eclampsia puerperalis, and that the latter never existed without the former, dogmas which, I must say, experience teaches me to disbelieve. It is questioned by some as to whether the fit is consequent on the obstruction of the rigid cervix tending to divert the blood propelled from the heart to the head, or whether it is a deviation of nerve force due to the former hindrance. If we look into the history of Mrs. P——'s case we will note that, from the fact of the functional periodicity being in an

[1] A paper read before the Brighton and Hove Medico-Chirurgical Society.

active condition during lactation, that this points to the high nervous tension of the ganglionic systems which is an essential factor in the reflex resultant which I am endeavouring to prove. Again, the fact of movements of the head causing almost coincident palpitation of the cardiac region points conclusively to the sympathetic influence at work in the whole excito-motor system. I am therefore of opinion that the eclampsia in the cases I have related was due to shock and not to diversion of blood or of nerve force. Now I have arrived at the following conclusions: given a very rigid cervix and a high tension of nerve force we may have convulsions occurring during labour, and that when these two factors are present it is possible to anticipate from sudden stretching of the unyielding parts conveying through a nervous system in such a state as I have mentioned a reflex influence on the brain proper causing shock and resulting in eclampsia. *En passant*, to strengthen my argument, I am wishful to refer to an analogy which, although very limited in degree, I consider applicable to the intention of the paper, and I therefore introduce it. I allude to sickness. Dr. Barnes places ovario-uterine vomiting under the category of convulsions. We are all of us well aware of the old nurses' proverb of a sick labour being a safe one, and we also know as a fact that it is usually coincident with the passage of the globe-head through the cervix, and therefore a safe one, because the convulsion explodes in the gastric organ. I had almost forgotten to draw attention to the two other cases, and refer these to the same category as Mrs. P——'s as to cause and effect, and I have said that the resultant is due to the reflex shock conveyed to the brain from the stretching of a rigid cervix either at will or by the head of the fœtus passing through it. And now I have arrived at a very important part of the subject—viz., the treatment of such cases as I have related. I shall consider it as an axiom that no practitioner should enter a lying-in room without chloroform. This is the sheet anchor in such emergencies as I have been discussing. And I go as far as to assert that its presence at hand is as essential, and probably more so, than ergot.

I have attempted to show that I have produced one form of eclampsia puerperalis by mechanical stretching of the cervix uteri without any poisoned state of blood. I shall consequently arrange my method of treatment under two heads: First, the preventive or forestalling; secondly, the immediate. I will commence with venesection, which I must discard as coming under either class, preventive or immediate. It may possibly be of service in relieving subsequently the comatose condition which in vascular temperaments arises from arrested circulation due to a relaxed reactionary condition of the vaso-motor system following the shock. But in two out of the three cases mentioned in this paper the system was anything but replete—in fact, the reverse—although the third case was not so hypernotic as to demand bleeding. Drawing your attention to my previous syllogism—viz., that given a rigid cervix and a certain explosive standard of the nervous system, I say there is every probability of eclampsia resulting, and on these grounds I think I may justify my belief in basing the *modus operandi* of treatment by using such means and administering remedies which are known to relax the tissues in question and reduce central nervous irritation. And amongst the preventive class I will take the following: belladonna, opium, bromide of potassium, chloral, and chloroform. Chloral has the combined effects of reducing the central nervous irritation as well as relaxing the tissues. Bromide of potassium acts more directly on the structure of the tissue of the cervix itself. When ordered as a preventive, I prefer giving the two drugs in combination. As to the immediate treatment when the paroxysm is going on, chloroform must be our sheet anchor. No recognised anæsthetic acts quicker, unless it be nitrite of amyl, the virtues of which I have no experience of. The former must be pushed to the surgical extent, and repeated as often as there is a recurrence of the eclampsia. After a time the patient remains in a more or less comatose condition, which may continue for some hours, or even days, without being fatal. The pulse and other general indications must be our guide as to whether we should use the lancet or not. We must use our discretion. I need not give any caution as to the necessity of avoiding all peripheral irritation, such as dashing cold water over the face, sinapisms, &c., which methods to check convulsions were rife in days gone by on account of their supposed restorative action, but which in enlightened scientific periods have been proved by the highest of obstetric authorities to act quite in the reverse manner. One word as to the forceps, and I am well aware of the fact of my trespassing on dangerous ground when I say I should forbid the use of them unless the head is pressing on the perineum free of the cervix, and then will be the time and not before when we should seek instrumental aid.

Brighton.

ABSTRACT OF PAPER ON

PERICHONDRITIS OF THE LARYNX.

BY F. DE HAVILLAND HALL, M.D., F.R.C.P.

AT the meeting of the British Medical Association in Leeds, after the reading of the above paper, the following points were submitted for discussion:—1. Is there such a disease as primary laryngeal perichondritis? 2. Are there any characteristics by which the laryngeal perichondritis of tuberculosis, of syphilis, and of cancer can be differentiated? 3. The occurrence of laryngeal perichondritis in enteric fever. 4. The causes of the dyspnœa. 5. The prognosis. 6. The treatment of laryngeal perichondritis.

Evidence in favour of the occurrence of primary laryngeal perichondritis was adduced, but the author laid stress on the difficulty of excluding the possibility of the perichondritis being of a secondary nature. In the diagnosis of the different forms of secondary perichondritis much difficulty was at times experienced. The presence of tubercle bacilli in the secretion from the larynx, pale and puffy swelling of the epiglottis and arytenoids, the occurrence of ulceration in the inter-arytenoid fold, and the existence of apical mischief in the lungs, spoke for the tubercular origin of the disease; the absence of pain, extension of ulceration from the pharynx, a history of past syphilitic manifestations, and the effect of full doses of potassium iodide were the chief points to be noted in syphilitic cases. In perichondritis of malignant origin, a thickened and infiltrated condition of the thyroid and cricoid cartilages and surrounding tissues, and the occurrence of hæmorrhage from the larynx, were the chief diagnostic points. Microscopic examination might be of use. The cause of the perichondritis of enteric fever was attributed to defective nutrition rather than to any specific inflammatory process. The absence of symptoms was stated to be a marked feature of typhoid perichondritis. Œdema of the larynx, immobility and median position of one or of both vocal cords, abscess, impaction of the necrosed cartilage in the glottis, collapse of the cartilaginous wall of the larynx, and, finally, in the more chronic cases, stenosis from cicatrisation, were mentioned as the causes of the dyspnœa in laryngeal perichondritis. The prognosis in this disease was always a gloomy one; in the primary and limited variety, however, it was more hopeful. Of secondary perichondritis, the traumatic and syphilitic varieties were the most hopeful, though, in the latter, stenosis, as the result of cicatrisation, usually occurred. In cancer the occurrence of perichondritis accelerated the end by exhaustion from the profuse suppuration. Typhoid perichondritis was a very grave complication.

Functional rest and the use of ice-bags, or Leiter's coil externally and ice internally, were enjoined for the treatment of the disease at the outset. Œdema should be treated by the application of cocaine and scarification, abscesses should be opened, and necrosed cartilage should be removed by the laryngeal forceps. Early tracheotomy was advocated, and subsequent dilatation by Schroetter's method practised. Allusion was made to the plan originally suggested by Dr. Duncan Gibb of splitting the thyroid and removing dead structures. This plan has been recently advocated by Dr. Sajous, and its employment in suitable cases was recommended.

OLD STUDENTS' DINNERS.—At the annual dinner to be held at St. Mary's Hospital Medical School, on Wednesday, Oct. 2nd, the chair will be taken by Dr. Broadbent, in place of Dr. Lees, who is unavoidably prevented from being present.—At St. Thomas's the annual old students' dinner will be held in the governors' hall of the hospital on Oct. 1st. Dr. Harley will preside.

CASE OF

CENTRAL RUPTURE OF THE PERINEUM, SCARLET FEVER, AND SEPTICÆMIA.

BY J. H. ASHTON, M.R.C.S.

AT about 1.30 P.M. on April 26th I was sent for to attend Mrs. W——, age twenty-three, in her confinement. I found her a well-developed woman, with regular but not very strong pains. On examining her, the os uteri was about the size of a shilling, the head presenting, and in the first position. At 2.30 P.M. the os uteri was fully dilated, and the membranes ruptured. At 4.15 P.M. the perineum began to distend; the pains were not very strong; the parts were moist, the pulse was quiet, and the head continued to advance gradually. A few minutes before the birth of the child, which occurred at 5.30 P.M., I observed the skin just in front of the anus cracking, evidently in consequence of its inability to dilate to a further extent; the crack extended with the next pain in a transverse direction, the skin in this situation being hardly thicker than a sheet of paper; at the same time the posterior commissure of the vulva began to tear. I immediately applied the forceps, but in spite of all precautions (in the way of support and direction of traction) the perineum was lacerated from the fourchette to the spot where it originally gave way. During the progress of the labour and afterwards the patient complained of sore-throat and thirst; the skin was cool and the pulse quiet. The following day (April 27th) the same symptoms were complained of. The perineal wound looked healthy; it had been left unstitched. Early on the 28th, fever with diarrhœa and constant sickness came on, the pulse was very rapid, and the throat was red, swollen, and painful. Superficial sloughing began on the right side of the wound, and extended over its whole surface; on the left side the same appearance presented itself, but to a less degree. On April 29th a copious red rash (scarlatinal) appeared, which spread over the whole body. At this time the external parts were swollen and inflamed with a profuse purulent discharge. Sickness, diarrhœa, and delirium had been present. On the following day (April 30th) the lochial discharge ceased. On May 5th the rash had entirely gone, and the wound assumed a healthy appearance. The treatment during the first part of the attack consisted in the administration of salines, with small quantities of stimulants; and during the latter part quinine in ten-grain doses was given, on the nights of the 5th, 6th, and 7th days, with tincture of digitalis and moderate quantities of stimulants; antiseptics were also applied locally. On the morning of May 14th the patient was seized with rigors, sickness, and diarrhœa, with rapid pulse and tenderness over the hypogastric region, the cause being evidently septicæmia, due probably to the discharge from the wound not having been washed away during the night. The tenderness over the hypogastric region passed away on the 17th, and the patient commenced to be convalescent on the 18th. No albumen was found in the urine drawn off by catheter.

Remarks.—Central rupture of the perineum has been known to occur in cases where the coccyx has been less curved forwards than usual, but the condition here was normal, and the cause of rupture evidently the large size of the child's head. It was apparent that rupture would take place some time before it actually occurred, also that the forceps would not only cause a rent, but probably a severe one—an opinion expressed and verified by the result. The sloughing appearance of the wound was due to the scarlatinal poison, which had manifested its presence prior to the outbreak of the febrile symptoms. The scarlet fever gave rise to neither peritonitis nor metritis, differing in this respect from the septicæmic attack where metritis occurred. In a collection of cases by Dr. B. Hicks[1] several of scarlet fever are recorded, in some of which local lesions were found, in others none. It is certain that scarlet fever in the lying-in state sometimes runs its course without any; and it may be inferred that, when present, they probably result from some local cause introduced from without, or arising within the patient's body, or from injury during labour. The infant did not take the disease, and this was the mother's first attack.

Richmond.

[1] Obstet. Trans., 1876.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF SUPPURATING OMENTAL CYST; ABDOMINAL SECTION; EXCISION OF CYST; RECOVERY.

BY JOHN WALDY, F.R.C.S. ENG.,
SURGEON TO THE SCORTON HOSPITAL.

B. H——, a girl eight years of age, was first seen in May, 1888, when she was suffering from pain in the lower part of the abdomen. Her mother stated that she had suffered at intervals during the last two years from attacks of abdominal pain, which had increased both in severity and frequency. The pain was not accompanied by vomiting, nor did it appear to be caused by food or induced by violent exercise.

On examination, the lower part of the abdomen was visibly enlarged, and measured twenty-four inches in circumference at the umbilicus. On palpation, a tense globular, hard, movable (in all directions) swelling could be felt. Over its surface a creaking feeling was perceptible during respiratory movements. It fluctuated in all directions, and appeared not to be deeply situated or to be fixed in the pelvis or lumbar regions. Percussion gave a dull note over the swelling, with distinct resonance all round. The hand could be passed below the swelling into the pelvis. A hypodermic needle withdrew pus.

My partner, Mr. J. H. Hutchinson, agreed with me that the tumour was either a suppurating hydatid or dermoid cyst, probably situated in the omentum, and that excision or drainage offered the only chance of cure. Accordingly we agreed to open the abdomen, and having obtained the assistance of Mr. Richard Bowes of Richmond, on June 6th I made an incision two inches and a half long in the middle line between the umbilicus and pubes. On exposing the cyst, it was found firmly adherent to the abdominal wall in front. These adhesions were separated, and after tapping the cyst, withdrawing half its contents, and clamping the opening with pressure forceps, it was found to be adherent to the intestines and liver. The child was now turned on to her right side, and a portion of the cyst having been drawn out of the wound, the cyst wall was freely incised and the pus completely evacuated. The second opening was again clamped, and the adhesions were separated without much difficulty until the descending colon was reached; here they were so dense and firm that in dissecting them off the bowel a small aperture was made, which was immediately closed by Lembert's suture. The cyst was now delivered, and the broad pedicle formed by the adherent omentum was divided between numerous catgut ligatures. The abdominal cavity was washed out with warm spring water that had been previously boiled, a drainage-tube was introduced into the pelvis, and the wound was closed in the usual way and dressed with iodoform wool.

On the following day the wool was saturated with red serous discharge. Pulse 130; temperature 100°; urine loaded with urates, passed without the aid of a catheter. Vomited two or three times. The drainage-tube was removed, and fresh wool applied. On the third day the pulse was 100; temperature 99°. Bowels acted naturally on the second day. On the fourth day the wound was healed, and the child gradually convalesced. The diet was warm water for the first twenty-four hours, milk-and-water for the following two days, then beef-tea and milk until the end of the first week, and afterwards a gradual return to ordinary food.

The clinical features of the case are interesting. The age of the patient suggested a dermoid cyst. The resonance all round the tumour, together with its free mobility and the fact that the hand could be passed between the tumour and the liver and spleen, and also below the tumour into the pelvis, as well as into both loins, excluded a tumour com-

mencing in any of the abdominal or pelvic organs. The cyst was unilocular and about the size of a large football; its walls were about an eighth of an inch thick, and to its lining three plates of bone were adherent. Microscopic examination of the fluid only demonstrated the presence of pus.

Catterick, Yorks.

ON THE USE OF PILOCARPINE IN THE FORM OF HYPODERMIC INJECTIONS IN THE TREATMENT OF DEAFNESS.

By ADOLF BRONNER, M.D.,
SURGEON TO THE BRADFORD EYE AND EAR HOSPITAL.

IN the *British Medical Journal* of July 20th, Dr. T. Woodhouse reports on five cases of deafness which he treated with pilocarpine, according to the suggestion of Field and others. He is surprised to find that "no real good was effected." In four of the cases the patients were over sixty years of age, and had evidently been deaf for many years; and in one case the patient's age was forty-four, and deafness had existed for nine years. Dr. Woodhouse does not give us any particulars as to the exact nature and cause of the deafness. We surely cannot expect pilocarpine to cure all cases of deafness, irrespective of the nature and duration of the disease. How can we hope for any improvement in old chronic cases, in which there is perhaps much thickening and calcification of the membranæ tympani or fenestræ ovalis or rotundæ, or where the membrana tympani is absent or adherent, or there is much ankylosis of the ossicula, or where extensive changes have taken place in the internal ear or auditory nerve?

Pilocarpine can only be of use in certain classes of cases, and at present it ought to be our endeavour to define these classes as strictly as possible. In some acute or subacute cases we may reasonably hope not only to arrest the progress of the disease, but also in some cases to restore normal hearing; but in chronic cases we ought to be satisfied if we can prevent the deafness from progressing. In all cases in which the deafness is not entirely due to affections of the internal ear, we ought also to make use of the Eustachian catheter, in addition to the use of pilocarpine.

I have used pilocarpine in many cases of deafness, and in some with very good results. At present I have a girl of twelve under treatment who is suffering from a subacute affection of the middle and internal ear. After twenty injections of pilocarpine she can hear the watch with the right ear at twenty inches and with the left at six inches, and hear "whispers" (ninety-nine) at more than five metres with either ear. Before treatment she could not hear the watch at all, not even on contact, and loud speech (ninety-nine) at two metres. There is a history of congenital syphilis.

As far as my experience goes, the following classes of cases seem to be the most suitable for treatment by pilocarpine:—1. Deafness caused by acquired or inherited syphilis, due to changes either in the internal or middle ear. These seem to be the most successful cases. 2. Deafness due to hæmorrhage or exudation into the internal ear. 3. Cases of chronic catarrh, with recurrent exacerbations. 4. Cases of sclerosis or dry catarrh, but only in the initial stages. Normal hearing is very rarely restored in this class of cases, but one can frequently arrest the progress of the disease.

I will only add that I am still collecting cases and making further investigations in this very important subject, which I hope to publish *in extenso* at some future time.

Bradford.

POISONING BY STRYCHNINE; RECOVERY.

By ARTHUR E. LYSTER, M.R.C.S., L.S.A.

SOME time back I was called to a woman who had taken rat-poison. On my arrival (within fifteen minutes of the poison being taken) I found that the chemist who had supplied the poison had administered sixty grains of chloral. At once a full dose of sulphate of zinc and copious draughts of warm greasy water were given her, which soon produced free vomiting. Again more greasy water and sulphate of zinc were given, when again she freely emptied her stomach. About fifteen minutes after my arrival she developed tetanic convulsions, and at once chloroform was administered, and repeated constantly for at least an hour and a half. She recovered. The chemist who supplied the rat-poison told me it contained two grains and a half of strychnine.

Coleshill.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

WEST LONDON HOSPITAL.

FIVE RECENT CASES ILLUSTRATIVE OF CEREBRAL SURGERY; REMARKS.

(Under the care of Mr. C. B. KEETLEY and Drs. DONALD HOOD, J. B. BALL, and COLMAN.)

(*Concluded from page 595.*)

THE cases which we have already published have been examples of (1) successful trephining for bullet wound of brain; (2) recovery after trephining for cerebral abscess; (3) exploratory trephining in a patient suffering from new growth of the pons, in which there was reason to suspect intracranial suppuration.

In Case 4 it is to be regretted that the operation was not performed earlier. The case was much clearer at first than at the time surgery was resorted to. There was then a most misleading set of symptoms superadded and masking the plain original indications—namely, a red and tender swelling above the left ear, a history of discharge from that ear given by one parent and denied by another, and some tenderness over the mastoid process. After a consultation it is not surprising therefore that the first trephining was performed with a view to exploring not only the motor part of the cortex, but also the temporo-sphenoidal lobe, well known to be the usual seat of abscesses connected with ear disease. The second trephining was done in the right place. It failed because it was a second trephining, and was therefore undertaken with less heart and thoroughness than the first. Had the exploration been as thorough and systematic at the second as at the first, the pus must have been reached. The second trephine hole was not exactly over the pus, because one does not trephine in the middle line directly over the superior longitudinal sinus. The fact that the symptoms, although cerebral and not spinal in character, were rather paraplegic than hemiplegic, at first pointed plainly to the situation of the pus, and, reading the case over again, it is plain that, with prompt action and a just faith in the doctrines of cerebral localisation, the collection of pus between the leg centre and the falx cerebri should have been found.

CASE 4. *Abscess (? tubercular) diffused between falx cerebri and left hemisphere, and also in left occipital lobe and on anterior and inferior aspects of left frontal lobe; trephining; death.*—Henry H——, aged thirteen, was admitted under the care of Dr. J. B. Ball, on Sept. 24th, 1888. His illness began on Sept. 11th with vomiting and headache. The former ceased after two days, but the latter continued. On Sept. 20th he was noticed to be "weak in the back and the legs," could scarcely walk, and the weakness was increasing. On the 23rd he was said to have been delirious at night, with twitching of the face and hands; bowels very constipated. Both personal and family history good; no injury; no tubercle; but a history of old ear disease and of discharge a week before the onset of symptoms.

Sept. 25th.—Restless, much pain in the head, frequently whistles and calls out, is slow at answering questions; skin hot and dry; pulse 72, regular. Pink flush on the face. There is a slight white fur over the tongue, and the papillæ are red and prominent. No paralysis of cranial nerves. Pupils dilated, normal. Slight right internal squint. Face twitches slightly (probably voluntarily). Arms and hands weak. Left leg weak; right leg can scarcely be moved; knee-jerks exaggerated; no ankle clonus. Abdomen supple, not retracted. No aural discharge. Temperature: evening, 102·4°.

26th.—Slight left ptosis (?) Rather duller; otherwise the same. Temperature: morning, 102·8°; evening, 102°. Pulse 88.

29th.—Temperature: morning, 100·6°; evening, 101°. Much pain down the back yesterday. Motions passed beneath him. Tongue protrudes to right. More noisy and restless.

30th.—Sensation in right leg seems much delayed. Knee-jerk less active than on right side. Plantar reflex scarcely perceptible. "A kind of risus sardonicus, with raising of upper lip"; left side slightly more than right. At 10 A.M. there was a rigor, and at 12 the temperature was 105°. Head shaved; mercurial ointment to be applied to it night and morning. Right eye: arteries tortuous, veins enlarged, disc hazy, but only a glimpse was obtained of it, owing to the boy's movements. The fundus of the left eye, as far as could be seen, was the same as the right, as regards vessels.

Oct. 3rd.—Yesterday both lower extremities were rigid with very excessive knee-jerks. Neck rather rigid and seemed to be slightly retracted. This morning the temperature dropped to 98·8°; pulse 92. Frequently calls out "mother," sleeps in intervals of calling out. Easily roused and answers simple questions correctly. Weakness of right arm doubtful. Slight but distinct drop of right side of face. The right leg can now be slightly raised. Knee-jerk excessive. Very slight rigidity. No plantar reflex. In the left no rigidity. Rectus clonus, but no ankle clonus. No plantar reflex. No retraction of head, ptosis, or squint. Abdominal reflex much less on the right side. Much wax removed from both ears yesterday. Right ear normal. In the left no sign of recent inflammation; (?) old perforation. Patient seemed much brighter in the afternoon, but very noisy at night. Temperature, 101°.

4th.—Temperature, 98·6°. Slight salivation. Gums a little swollen. A slight swelling, about two inches above the left ear, noticed last night, is now reddish and tender.

5th.—The notes show, if anything, a slight general improvement; but at 1.30 P.M. a rigor took place. Mr. Keetley saw the patient, and performed the following operation. After the head had been shaved, cleansed with liq. potassæ, soap, and nailbrush, the fissures of Rolando and Sylvius were carefully marked out on the left side of the head, and a semicircular flap was turned down, exposing the pericranium at the site of the tender swelling above the left ear. No evidence was observed that this swelling was connected with the cranium or its contents. The pericranium was therefore reflected and the skull trephined at the upper and anterior part of the wound—i.e., over the lower part of the motor area (about the situation of the facial centre). The button of bone was slipped through a small incision in the left thigh, and "pocketed," as it were, in the subcutaneous cellular tissue until wanted again. (Antiseptic precautions.) The dura mater bulged, but pulsation was well marked. On dividing it a little serum escaped, and the brain bulged strongly through the opening. The intracranial tension was unmistakable. An aspirator needle was pushed (1) straight in, (2) upwards into the leg centre, (3) horizontally into the hemisphere, (4) downwards through the temporo-sphenoidal lobe as far as the upper surface of the petrous part of the temporal bone, (5) backwards and downwards. A little frothy blood-stained fluid escaped, especially on the third puncturing. The dura mater was replaced as well as was possible. The brain bulged so as to make suture of the dura impossible. The piece of bone was taken from the thigh, and a sponge being held over it, it was clipped into small pieces directly over the wound by bone forceps. The flap was then replaced. Silver sutures; catgut drain. Dressing of wood-wool pads over iodoform gauze, the latter wet with sublimate lotion (1 in 2000). Fixed with gauze bandages and plenty of strapping.

6th and 7th.—Was certainly no better for the operation. On the 7th appeared aphasic, repeating a few words, such as "Mother," "Yes," "I want some water." Temperature 99° last night, normal this morning.

8th.—Passes motions unconsciously in bed. Temperature: evening, 101°.

9th.—Pupils for the first time noticed to be unequal (right larger than left). React normally; no squint. Facial paralysis marked. Tongue does not deviate to the right quite so much as yesterday. Temperature: morning, normal; evening, 102°.

10th.—Seems better. Recognises his mother. Understands a little better. Head a little retracted. Tongue protruded nearly straight. Leg and arm movements rather better. Has control over sphincters. Temperature 99·2° this morning; pulse 100, very much stronger. Marked optic neuritis in both eyes. Tortuosity of vessels much increased since last examination.

11th.—Dressed. A hernia cerebri apparently commencing at the seat of trephining. No pus, either superficially or on passing a probe into the posterior angle of the wound. It reached the trephine hole without resistance. Strands of catgut used for drain nearly absorbed, so the stump (externally) was removed. Iodoform gauze dressing. Face rather more drawn this morning. About 5 P.M. the patient became comatose. When restless he threw the left arm and leg about freely, but did not move the right limbs at all.

Second operation.—Believing that the symptoms pointed distinctly and principally to suppuration in the cortical centre for the movements of the right leg, Mr. Keetley trephined again, the portion of bone being this time removed from a point as nearly as possible just in front of the upper end of the fissure of Rolando. The dura mater bulged greatly, but there was pulsation. Two or three exploratory punctures with an aspirator needle were then made to a depth of an inch and a half, but unsuccessfully. The dura mater could not be stitched together. The button of bone was not replaced. Dressing &c. as in preceding operation. During the operation the patient did not change. His pulse was fairly good all through. Afterwards he lay as if dead, only just breathing with an almost imperceptible pulse. Some brandy was given, and patient revived. Temperature 99° at both 8 P.M. and 12 P.M.

12th.—A little stronger, but hardly conscious. Pupils equal. Tongue protruded nearly straight. Temperature 99° at 2 A.M., 100·2° at 6 A.M., 97·8° at 10 A.M., 98·6° at 2 P.M., gradually rising to 99·4° at 10 P.M. Afternoon and evening restless, rolling from side to side; "cephalic" cry.

14th.—Quieter. Right arm quite paralysed to-day. Leg weaker than before, but is still moved a little. Sensation seems impaired, not lost on right side. Squint more marked. Facial paralysis less. Pulse 125; good volume; rather low tension. Temperature 100·6° at 10 A.M.; 101° at 2 P.M. Incision of first operation healed excepting at the angles. Prominence and pulsation well marked. Second wound looks healthy, but a hernia protruded from the upper part of the incision, the size of a bean, when the dressing was first removed, but was a good deal larger before the new dressing was applied. A thoroughly cleansed probe was passed into the posterior angle of each incision. A small quantity of thick brownish fluid escaped from the first wound after the withdrawal of the probe. Temperature 99°. In the evening the patient was a little more intelligent. Puts out his tongue almost as soon as asked; it protrudes a little to the *left* now. Has taken in the twenty-four hours about six eggs and four pints of milk. Temperature 102·2° at 6 P.M.; 99·2° at 10 P.M.

15th.—Seems stronger, slept pretty well during early part of last night, but after 5 P.M became restless and cried a good deal. Rigidity commencing in right arm. Leg also slightly rigid, with rather less movement than before. Squint and facial paralysis about the same as before. Does not do as asked so readily; clutches at bedclothes; some twitching of face, especially about mouth; occasionally a slight tremor of whole body. This does not occur very often, and is very slight. Pulse 150, volume and tension fair; temperature, 10 A.M., 100·6°; 6 P.M., 102°; 10 P.M., 101·6°. Takes food well. Brandy (of which he had been taking three ounces daily since 8th) stopped.

16th.—Sinking. Some movement in right arm to-day; other parts as yesterday; clutches at his head and at the bedclothes a great deal. He died about 2 P.M. Temperature, 2 A.M., 102·2°; 6 A.M., 104·2; 2 P.M. (and after death), 105·6°.

Abstract from the notes of the post-mortem examination which was held three hours after death.—First wound showed a very small quantity of pus beneath the flap and emitted an offensive odour. Several of the replaced pieces of bone were adherent. The skull-cap having been removed the dura mater seemed healthy, and having been turned back pus escaped from the anterior surface of the frontal convolution, and very freely from between the two hemispheres as the falx cerebri was turned back, probably six drachms altogether, thick and offensive. At the inner aspect of the convolution joining the ascending parietal and frontal convolutions was a depression about the shape and size of a shallow teaspoon, evidently produced by a rather large collection of pus at

this point—i.e., the inner aspect of the centre for the right leg. The second trephine opening was about one inch external to this, or rather to the median line. The anterior two-thirds of the left side of the longitudinal fissure were covered with a pyogenic membrane of probably recent formation. From this backwards to the inner surface of the occipital lobe the pus was more fluid. At the postero-inferior angle of the occipital lobe was another small collection of pus under the dura mater, which had formed a small excavation in the brain substance. It was in connexion with the rest of the pus. The brain was otherwise healthy. No bone or ear disease was found, but the internal and middle ear were not examined. No tubercle was noticed in any part of the body.

CASE 5 (William P——, aged nine, admitted on the 19th of July, 1889) is added to show how easily a surgeon might be led into performing a premature and unnecessary operation. When first brought to the hospital (two or three hours after falling from a scaffold twenty-five feet high) his pupils reacted well to light and were natural in appearance, although he was unconscious. In three-quarters of an hour the patient was comatose, his pupils had ceased to react and were dilated, his right arm and leg were flaccid, had lost their reflexes, and there was slight right facial palsy. But when Mr. Keetley arrived at the hospital (which is four miles from the middle of London) coma and paralysis had given way to maniacal excitement, and instead of operation an enema of castor oil and the vigorous application of cold to the head, including the cold douche if necessary, were ordered. The cold douche was not necessary. The patient was conscious in a few hours. The next day he was merely irritable and confused; and on Aug. 1st (thirteenth day) he is described as "quite well; fairly intelligent." He is reported to have never been very bright and cannot read, although he has been to school.

NORTH RIDING INFIRMARY, MIDDLESBROUGH.

AN ISOLATED CASE OF FRIEDREICH'S DISEASE.

(Under the care of Mr. HINSHELWOOD.)

AN interesting case of Friedreich's disease has been under observation during the last nine months at the out-patient room of the North Riding Infirmary, and, as it presents several very interesting and unusual features, seems deserving of record. All the characteristic features of Friedreich's disease are present—the ataxy, the unsteadiness of the head, the affection of speech, the lateral nystagmus, the peculiar deformity of the feet, and the age of onset. The case presents a very complete clinical picture of the group of symptoms which Friedreich first described, and to which the names of Friedreich's disease and hereditary ataxy have been given. The most striking feature of Friedreich's disease is that it attacks many members of one generation, and scarcely any isolated cases have been recorded. This case is as yet an isolated one, and this gives it very special interest. Dr. Bury, in *Brain* (1886), says that up to that date only four isolated cases had been placed on record. It is possible that the rarity of such isolated cases is not so much due to the fact that they do not occur as that they are not recognised. Several cases of ataxy occurring in the same family at once suggests the diagnosis; but isolated cases are very apt to be overlooked, unless the examination be a very minute and searching one. It is possible, however, that this case may not remain an isolated one, as some other instances may yet occur in the same family, there being two members younger than the patient, one aged eight years and the other eleven years. As yet, however, it stands alone. Dr. David Drummond of Newcastle has recently seen the case, and agrees with Mr. Hinshelwood's diagnosis.

D. B——, aged twenty-four, is one of a family of five, of which four members are still alive—a brother aged eight, a brother aged eleven, the patient himself, and a sister aged twenty-six. The two brothers and the sister are in perfect health, and entirely free from any nervous symptoms. A younger brother died in early childhood from scarlet fever. There is no neurotic history in the family either on the maternal or the paternal side. The patient enjoyed good health until three years ago, when he first observed that he was unsteady on his legs. Since then his gait has gradually become worse, and the other symptoms have gradually manifested themselves. During the last twelve months all his symptoms have become rapidly worse. His present condition is as follows: He looks healthy and well nourished. His muscles are well developed, and there is no wasting. He cannot stand with his eyes closed, and his gait is markedly ataxic. He lifts his feet very high, and then brings them down with a peculiar stamp. During the last six months his gait has become very much worse, so that now he can scarcely walk without support. There is no impairment of power in the legs. The feet present the very peculiar appearances which have been frequently noted in Friedreich's disease; they are extended at the ankle-joint, so as to be in the position of talipes equinus. The instep is very highly arched, and there is extreme dorsal flexion of the great toes. The movements of the arms are slightly ataxic, and the grasp of both hands seems to be slightly weakened. The little finger of the right hand and the two adjacent fingers are often flexed into the palm, and he requires to straighten them out with his other hand. He carries his head bent forwards, with the chin resting on the sternum, and there is very marked antero-posterior curvature of the upper half of the spine. The head and neck are constantly oscillating with peculiar jerky movements in an antero-posterior direction, even when he is at rest, but these oscillations are greatly increased both in frequency and range when he attempts to walk. Sensations of pain, temperature, and muscular sense normal. Electro-sensibility and electro-contractility normal. The sensibility to touch is normal in the upper limbs and body, but impaired in the lower limbs, especially in the lower part of the legs and feet. He has occasionally slight shooting pains in the legs, and now and again attacks of headache. Both knee-jerks are completely absent. On the right side all the cutaneous reflexes are present and active, except the cremasteric, which is lost. On the left side only the abdominal reflex is present, but sluggish, and very faint. His speech is indistinct and jerky. During the last nine months it has become much worse. There is a peculiar slurring of syllables, and a tendency to run two into one; also occasional hesitation. There is slight twitching of the tongue. His pulse during the nine months he has been under observation has ranged between 120 and 140, never less than 120. His eyes, when fixed on an object, show intermittent attacks of lateral nystagmus. They give several oscillations, remain fixed for a time, and then oscillate again. The nystagmus is most marked on making lateral movements with the eyes either to right or left. The movement is then of a peculiar jerky character. Both bladder and bowels have become affected during the last twelve months. The bowels are very costive, and when he feels the desire he must relieve them at once. The sphincter ani offers little resistance to the passage of the finger. He can retain his urine for some time, but whenever the desire to urinate comes on, the bladder must be immediately emptied.

Medical Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Linear Proctotomy.—Treatment of Intestinal Obstruction.

A MEETING of the Surgical Section was held on June 7th.

Dr. BALL defined the operation of linear proctotomy as the making an incision through the anus and rectum directly backwards to the coccyx and hollow of the sacrum; the following being the indications for its performance:—1. For the cure of non-malignant strictures of the rectum, in which gradual dilatation by means of bougies or other instruments is either impracticable or inefficient. 2. For the removal of growths situated high up in the bowel or in the hollow of the sacrum. 3. As a palliative measure instead of colotomy in advanced malignant disease. 4. As a preliminary step to amputation of the rectum. Dr. Ball brought forward two cases illustrating the first class:—Case 1: Male aged twenty-three years, five years' syphilitic history. Considerable ulceration of lower part of rectum, with tight stricture above. Bougies gave rise to great irritation, so linear proctotomy was performed. Relief to obstruction was immediate, and the ulceration healed without further difficulty. There has been no recurrence of the stricture (twenty months after operation), and the amount of incontinence is ex-

tremely slight. Case 2: Female, aged forty-seven years, for five years suffered from a morphœa-like condition, which produced puckered subcutaneous cicatrices over both breasts, heart, and abdomen. She also had some ascites. The vagina was contracted, the uterus fixed, and a tight smooth stricture of the rectum existed. This became so tight that her life was threatened from intestinal obstruction. The stricture, which would only admit about a No. 9 catheter, was divided, and all symptoms of obstruction obviated. Six months subsequently she developed stricture of the œsophagus, which proved fatal, no recurrence of the rectal trouble having taken place. The pathology of this case was doubtful, apparently not carcinoma; but as she died down in the country, no necropsy could be obtained. The following are examples of the removal of neoplasms by means of linear proctotom:—Case 3: Male, aged sixty-three years, rectum obstructed by soft tumour filling hollow of sacrum. An attempt to remove the mass by linear proctotomy was so far successful that the tumour, which proved to be a lympho-sarcoma, was completely extirpated; but, unfortunately, the patient died from septic peritonitis. Case 4: Male, aged twenty-six years, much worn down by the continuance of dysenteric-like discharge from rectum. A soft sessile growth could be felt at the highest limit accessible by digital examination, but, with the aid of linear proctotomy, it could be completely controlled. It was extremely vascular, and, in the patient's exhausted condition, destruction by Pacquelin cautery was deemed safer than extirpation. The patient recovered very perfectly, completely regaining his strength, and there has been, so far (eighteen months), no recurrence and no inconvenience from incontinence. Class 3: Dr. Ball did not consider that linear proctotomy could be favourably compared with colotomy for the relief of obstruction due to malignant disease. And in the fourth class, the consensus of surgical opinion was certainly in favour of adopting linear proctotomy as a preliminary to amputation of the rectum, and Dr. Ball had hitherto invariably practised it.—The PRESIDENT believed that the operation afforded a fair chance of curing non-malignant stricture of the rectum almost immediately.—Sir WILLIAM STOKES said it was new to him to hear that Verneuil advocated division by the knife instead of by the cautery, as he happened to be present at a discussion when that operator advocated the latter mode, but since then he seemed to have modified his views. Indeed, the tone of the discussion to which he referred was that the operation, whether done with the cautery or with the knife, was only temporary in its nature. He wished to ascertain whether Mr. Ball recommended, and, if so, what precautions to keep open the stricture, for in the justly popular operation of internal division in organic stricture of the urethra, unless precautions were taken to keep the urethra dilated the stricture returned.—Mr. BALL, in reply, said Verneuil's operation, as described in his paper, was first a division of the tissues by means of an écraseur, which was next inserted through a canula and then through an opening made with a cautery. He was not in the habit of using the knife. With regard to the subsequent treatment, in both cases of stricture a full-size bougie was passed for a certain time; but in one of the cases which he saw within the last week, the bougie had not been passed for over a year, and no difficulty whatever occurred in getting satisfactory relief from the bowels. Between stricture of the urethra and stricture of the rectum there was this difference, that the urine flowed through the same channel after the operation as well as before, while as the result of the operation for stricture of the rectum a new exit was made for the discharge from the bowel—namely, immediately below the tip of the coccyx, and therefore the probability of subsequent stricture was very slight.

Mr. W. THORNLEY STOKER read a paper on some points in the Treatment of Intestinal Obstruction. He dealt chiefly with the treatment of those cases where the obstruction was owing to the paralysed condition of the bowel due to the accumulation of fæces or flatus. In this class of cases a lumbar operation is rarely indicated, and, owing to the extreme meteorism, laparotomy is usually a very fatal proceeding. He urged the adoption of other measures previous to any precipitate opening of the abdomen, advocating the employment of pressure and massage, and the judicious use of purgatives. Of these latter remedies he considered undue fear existed. Of belladonna, when pressed to its full effect, he spoke highly, and quoted cases in evidence. Local treatment by rubefacients he stated his disapproval of, as he did also of opium, which he regarded as masking symptoms, and doing little or no good. Tapping the bowel with an aspirator needle or fine trochar he had found of great use where much tympanites existed. A large part of the paper was devoted to an attack on the "long tube," which he considers a dangerous and useless engine, productive of no effects which cannot be gained by the use of a shorter and safer instrument.—The PRESIDENT was of opinion, notwithstanding the strong outcry against opium, that that drug, if of use in any case of abdominal surgery, gave relief in intestinal obstruction. In his own practice he invariably used it subcutaneously. Inversion he had seen practised, but never with good results. The enema was of great use, not by O'Beirne's tube, but by the ordinary one. Puncture of the intestine also gave relief; but instead of the aspirator, he preferred using a trocar (one-tenth of an inch in diameter), and canula.

Reviews and Notices of Books.

Syphilis und Auge: nach eigenen Beobachtungen von Dr. ALEXANDER, Dirig. Arzt der Augenheilanstalt für den Regierungsbezirk Aachen. Pp. 234. Wiesbaden: Verlag von J. F. Bergmann. 1889.

IN this work Dr. Alexander places before us the results of twenty-three years' extensive practice, during which his attention has been specially directed to the effects of syphilis upon the eye and its surroundings. He possesses the records of 50,000 ophthalmic patients, and of these 1385 of very various nationalities were ascertained, with different degrees of certainty, to be suffering from the effects of venereal disease. He gives the records of several ophthalmic surgeons, who have treated 138,000 ophthalmic cases, of which 2998 were specific, or a percentage proportion of 2·16 cases. In his own practice there were 8 cases of disease of the lids and conjunctiva, 35 of the bones and lacrymal organs, 3 of the sclerotic, 146 of the extrinsic muscles, 59 of the intrinsic muscles, 75 of the cornea, 331 of the sweat tract, 107 of the retina, 568 of the optic nerve, 14 of the trigeminus and facial nerves, and 39 cases of congenital or hereditary disease. To each of these he devotes a chapter, introducing subdivisions under each head; the affection of the lids, for example, being considered under those of the integuments, the tarsus, and the conjunctiva. Hard chancre is rare. It has been seen in infants, owing to the filthy practice of some nurses of cleansing the eyelids of the infant with saliva, when themselves suffering from chancre. The prognosis is, Dr. Alexander thinks, not bad, healing taking place with a small scar only. We have, however, seen a case which terminated disastrously. In regard to the lacrymal apparatus, Forster ventured to state in Graefe and Sämisch's Handbuch that these parts invariably escape infection and disease of a syphilitic nature. Apart from other evidence, however, Dr. Alexander adduces a case of disease of the lacrymal gland which, from the attendant circumstances and the results of treatment, he had every reason to believe was of a syphilitic nature, and a similar case has been put on record by Albini. The affections of the cornea, which are regarded by Dr. Alexander under the head of syphilitic, are the interstitial form of inflammation and keratitis punctata, with and without iritis, as well as gummata. Interstitial keratitis he shows, by reference to cases recorded by different authors, is not always a sign of hereditary syphilis, but may proceed from direct infection; and he remarks very justly that, providing the iris and deeper structures of the eyes are not implicated, no matter how vascular and opaque the cornea may become, the prognosis is not unfavourable. Iritis of course occupies a long section, as it is so frequently due to this disease, the author estimating that nearly 50 per cent. of all cases of iritis are of syphilitic origin. It

occurs usually in the earlier stages in the first instance, and in one eye, the second eye becoming subsequently affected. He gives a very excellent description of the character of syphilitic iritis, which, however, unless gummata are formed, presents no very marked distinguishing features from ordinary iritis; such gummata occur in about 18 per cent. of all cases of iritis, and of course in a much higher proportion of syphilitic iritis. In regard to the retina, we have only space to give the conclusions at which Dr. Alexander has arrived, which are: That the retina is affected in syphilis in consequence of various forms of choroiditis syphilitica, constituting the several varieties of choroido-retinitis; that there may also be a simple retinitis, in which the disc and adjoining region of the retina is clouded, as described by Jacobson, the periphery remaining intact; that a form may occur in which there is exudation along the retinal vessels; that there may be retinitis with hæmorrhage in consequence of vascular disease and the formation of thrombi; and lastly, that there may be a central recurrent retinitis. Separate chapters are devoted to the hereditary manifestation of syphilis and to the treatment of syphilitic affections of the eye, and the rest of the work is taken up with an interesting description of the paralyses of the muscles of the eye, both internal and external, as indicative of syphilis. Altogether, the work is written in a very good style, the author nowhere seeking to obtrude his own opinions unduly on the reader, though founded on large experience, whilst he has read largely and profitably. We possess no similar work, and one of the junior members of the profession might with advantage translate the work.

OUR LIBRARY TABLE.

Commercial Organic Analysis. By ALFRED H. ALLEN, F.I.C., F.C.S., Past President of the Society of Public Analysts, Public Analyst for the West Riding of Yorkshire, &c. Second Edition, revised and enlarged. Vol. III. Part 1. 1889. J. & A. Churchill.—Mr. Allen has earned the thanks of all chemists and of all who are interested in chemistry for his valuable, clear, and accurate book. The new edition is greatly enlarged and improved, and has to a great extent the character of a new work. So much has been added and rewritten that the first edition is quite superseded. The title, indeed, is now almost too narrow, for so many methods of manufacture and so many details of physiological and general scientific interest are included that the book is to a great extent a manual of practical organic chemistry. The present volume opens with an account of some of the more important acids and allied bodies of the aromatic series. In this part we find an excellent account of the curious body which has become so celebrated under the name of "saccharin." The complex method by which it is prepared from the toluene of coal tar, and the tests—fortunately simple and satisfactory—by which it can be identified, are described in sufficient detail. It appears that—for the present, at any rate—its addition to beer is prohibited. A long and interesting section is devoted to the tannins, and the present state of our knowledge in regard to these important but troublesome compounds is well represented. No less than twenty pages are occupied by a description of the very numerous methods for the analysis of tannin matters which have been proposed. Here, as elsewhere, we are struck by the laborious research which the author has brought to bear on the subject, and the acute criticism with which he has interspersed the bibliography. But the most remarkable feature of the book is undoubtedly the long chapter—two-thirds of the whole volume—which deals with dyes and colouring matters. The chapter is almost entirely new, and, considering the enormous development of this branch of chemical industry in the last few years, we cannot wonder that Mr. Allen is dissatisfied with his work. He modestly asks in his preface for an indulgence, which will most readily be granted towards an attempt in which perfect success was impossible. But he has collected a great mass of material, descriptive and analytical, with care and skill; his classification is sensible and simple, and his chemical details, so far as we have tested them, are accurate. As an example of good scientific writing we may mention the sections on indigo and the final chapters on the recognition and examination of colouring matters and of dyed fabrics.

The Asclepiad. Vol. VI., No. 23. By BENJAMIN WARD RICHARDSON, M.D., F.R.S. Longmans, Green, and Co.—The memoir which Dr. Richardson has given to his readers in the present issue of his instructive and entertaining quarterly is that of Edward Jenner, accompanied by an excellent autotype portrait. The memoir of this "fortunate Esculapian," as the writer terms him, opens with a reference to the controversy that has been and is being waged about his name, and tells how at Berkeley itself the name does not kindle so much enthusiasm as that of Benjamin Jetsy, who "inoculated himself and his family with cow-pox many years before any medical man touched the subject." Dr. Richardson writes impartially enough to satisfy all but those who think they have proved Jenner to be an impostor, for he neither gives way to exuberant adulation on the one hand, nor to hypercritical contempt on the other. The appearance of this essay is timely, and it may be profitably read by the wide circle of those who take an interest in vaccination and its origin. Amongst the other papers in this number there is an interesting reproduction of one upon the Subclavian Arterial Murmur, written in 1861, and now republished with the addition of experience gained in the long interval, which, however, has not led the author to modify his conclusion that the bruit in question is largely produced by pressure. The papers on the Synthesis of Disease are continued, the action of organic acids and the induction of what is termed by Dr. Richardson "synthetic somnambulism" by the inhalation of the vapour of amylene being the subjects now dealt with. Among the Opuscula Practica there is a particularly instructive note upon the value of alcohol in certain cases shortly before commencing the administration of chloroform. Absolute alcohol, diluted with water (dose four drachms to one ounce and a half), is to be preferred to ether, brandy, or wine. In Ammonia as an Antiseptic we are reminded that our author thirty years ago read a paper on the subject at the Medical Society of London. The pages of the *Asclepiad* bear witness that the same love of inquiry and the scientific ardour evinced by the writer almost a generation since are still fresh, combined with a large measure of industry and literary skill.

American Resorts, with Notes upon their Climate. By BUSHROD W. JAMES, M.D. Intended for invalids and those who desire to preserve good health in a suitable climate. Pp. 285. Philadelphia and London: F. A. Davis. 1889.—The object of this work appears to be to bring to notice the great number and variety of health resorts in America, which should render it unnecessary for Americans to seek relief, as they now do in numbers, at the watering places of France and Italy. "If we, as a people, would more generally seek health in our own sanitaria, and our medical men would encourage their patients so to do, the value of these places of retreat for health would soon be appreciated and their fame become widespread." The book appears to be more intended for the general reader and the numerous health-seekers in search of information regarding climate than for members of the profession. It contains short sketchy notices of the principal health resorts under the heads of seaside, fresh-water, and mountain resorts, the mineral springs of the United States,

summer and winter resorts, and some very brief notes on mineral spas. From a professional point of view, the most important section of the work is the last chapter, occupying ninety-six pages, which consists of a translation of that portion of Dr. Woelkof's "Die Klimate der Erde" relating to North and South America and the Atlantic Ocean. There is also an excellent map of the United States, Canada, and Mexico. The book will probably prove useful in the direction intended by the author of bringing prominently before his countrymen the home resorts for invalids, but it does not contain much that would assist members of the profession in the selection of places to which it would be desirable to send invalids.

Algerian Hints for Tourists. By CHARLES E. FLOWER. Pp. 60. London: E. Stanford. 1889.—It would be difficult to give a more brief, clear, and correct description of this book than that of the author in his preface: "This is not an abridged guide-book; it is not a guide-book at all, but only an appendix to the guide-books. It gives no description of the places or objects to be visited, but only tells the reader what there is to see, and how to get to see it; further information it leaves to the guide-books properly so-called." It gives for Algeria exactly the information we have so often wished for but so seldom met with in our rambles both at home and abroad. We strongly recommend it to all who visit Algeria, either for a short tour or a winter's residence, feeling sure that it may save them time, temper, and expense.

Blackie's Modern Cyclopædia. (Con—Fir.)—We have received Vol. 3 of this work, which appears to be faithfully carrying out its purpose of providing a "Modern Cyclopædia of Universal Information and Handy Book of Reference on all subjects and for all readers." The first word treated in the present volume is "Cone," which is described in both its geometrical and botanical senses. The volume concludes with an account of Firdusi, the greatest epic poet of the Persians, and who produced an historical poem of 60,000 verses, containing the history of the Persian rulers up to 632 A.D. The illustrations and maps are, as usual, numerous and excellent.

New Inventions.

THE J.R.P. INSUFFLATOR.

WE have received from Messrs. Maw, Son, and Thompson an instrument designed by Mr. Philpots for use in the insufflation of suitable powders in various conditions of disease of the nose. It consists of three parts: (1) a mouth-piece, (2) a receptacle for the powder, to which is fixed (3) a flexible tube of rubber, at the end of which is attached a nozzle to be inserted in the nostril. The receptacle is composed of a chamber and a lid which screws into it; this is charged by filling the inverted lid of the box with the powder; the lid is then screwed upwards into the

body of the box, moderately tightly. When used, the lid is turned so as to bring niches on its edge in line with the tube. The nozzle is placed in the affected nostril, and a sharp puff given through the mouth-piece. When not in use, the lid is screwed tightly home, so that none of the powder can escape in the pocket. It is advised that the receptacle be refilled after the third or fourth application. It can be easily carried in the waistcoat pocket, and, if charged properly, used during the day. It is specially recommended by the inventor for use in cases of nasal catarrh or hay fever.

NEW ARTERY FORCEPS.

WE have received from Mr. E. Haines Cory a specimen of new artery forceps, which presents a novelty in the way in which it is kept closed after application to a wounded vessel. It is shaped at the end which catches the vessel much like those in ordinary use, the blades being serrated, and adapting themselves closely when apposed. The handles are so shaped that the one which may be called the lower extends with a slight curve, gradually becomes thinner, and forms a very elastic but strong spring, which meets the upper one—thicker, without spring, and altogether stronger in make—at the extremity of the half-S-shaped curve which it makes, and by a little pressure can be made to fasten on a side catch near its free end; the spring-like character of the lower blade enables it to remain on this ledge, while by its lever action it firmly closes the blades of the forceps. The whole is made of steel, and forms a light and rather elegant instrument. A little practice makes its manipulation easy; but its shape and smooth surface, without anything on which the fingers readily catch, is an objection to its employment when rapidity is of moment, and the instrument is rendered more difficult to hold in consequence of the blood from the wound both on it and the hands of the operator. It is easier to clean than the artery clamp forceps in common use, and takes up less room.

THE MAYBRICK CASE.

To the Editors of THE LANCET.

SIRS,—Mr. Bond is mistaken in attributing to me the suggestion that "some member of Mr. Maybrick's family or the nurses may have deposited the arsenic where it was found." I made no such insinuation; indeed, my thoughts pointed to another direction altogether, indicated in the evidence of the deceased's brother. I had as little sympathy as Mr. Bond with the Tichborne and Lipski hysterics; but those agitations were of a different character from the Maybrick controversy. I know nothing as to the innocence or guilt of the accused, but I do know that Mrs. Maybrick was found guilty "on suspicion." There was positively no evidence that she administered arsenic to her husband, and the Home Secretary distinctly states that the evidence did not "wholly exclude a reasonable doubt whether his death was in fact caused by the administration of arsenic."

In reply to Dr. Kirk, I may say that I overlooked nothing in my comparison between the Madeline Smith and Maybrick trials. The evidence on every point was very much stronger against Miss Smith than that against Mrs. Maybrick. But a study of the reports of these two famous trials will show the different treatment of the cases and of the evidence by the judge as well as by the jury. It is for the prosecution to prove the guilt of an accused, not for the accused to prove his or her innocence, which latter is often utterly impossible, even to the guiltless. It is ungenerous to contend that Mr. Matthews yielded to ignorant and unthinking clamour. After an exhaustive and impartial inquiry he remitted the capital sentence on grounds which will consistently involve the future liberation of the prisoner, an issue I have strong hope of yet witnessing.

I am, Sirs, your obedient servant,

London, Sept. 21st, 1889. NORMAN KERR.

THE REGENT'S CANAL.—At the last meeting of the St. Pancras Sanitary Committee the general insanitary condition of the Regent's Canal was considered. Dr. Smith said that, although the nuisance arising from the canal this summer had not been so great as in former years, owing to the spell of hot weather being of shorter duration, the bed of the canal was in a most insanitary condition, and it was a question whether they should not compel the Company to clean out the canal. Whenever a barge passed through, it stirred up the filth at the bottom. It was decided that the London County Council be requested to take action.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 28, 1889.

THE managers of the Metropolitan Asylums Board, at their meeting held on Saturday last, received a letter from the Local Government Board, directing attention to the increased powers which London possessed for dealing with cases of infectious disease. These powers are now very considerable. London has at length acquired compulsory notification of infectious disease, and although we have felt it our duty to protest against certain provisions in this Act, we none the less desire that it may accomplish its object and prove itself of service to the community. We are convinced that it will meet with no opposition from the profession, but, as law-abiding citizens, all will endeavour to carry out the duties imposed upon them. Some difficulties, however, may arise which are due to the construction of the Act. Medical men are expected to forward a certificate in respect of every case of infectious disease under their care to the medical officer of health of the district in which the patient resides. We fear the cases will be very numerous in which neither patient nor doctor will know in which parish the house is situated. Doubtless in some cases where the sufferer is but a lodger, the landlord will know to whom he pays the rates; but the landlord is not always himself resident, and under these circumstances, at the very least, delay must be occasioned. We believe the more efficient method would have been for these certificates to be sent to a central office, where within a few hours they could have been sorted and despatched to their proper destinations. We hold that the London County Council would have been a more proper recipient of these certificates than the Managers of the Metropolitan Asylums Board, for the information in the hands of the former would be used in detail, by the latter only in its aggregate, and statistical returns sent every week would have answered all possible requirements of the hospital-providing authority. As it is, the one central authority which, having the services of a medical officer of health, can watch over the health of London in respect of the whole area would have to wait a week before tidings of a widespread epidemic, such as occurred in 1866, would reach it. This perhaps is the weakest point in the whole Act.

The Managers have, however, under the Poor-law Act of 1889, obtained powers which will be much more useful to them than that of receiving notice of cases of infectious disease. They are now authorised by statute to receive into their hospitals any person who is not a pauper, and is reasonably believed to be suffering from fever, or small-pox, or diphtheria. The expenses incurred by the managers are to be paid by the guardians of the union from which the sufferer is received, and the guardians may recover the amount of these expenses as a simple contract debt from the patient, or those liable by law to maintain him, but any expenses not so recovered are to be repaid to the guardians out of the Metropolitan Common Poor Fund.

We do not doubt that eventually the guardians will not be at the trouble to obtain any repayment from the patient. It is so easy for them to be recouped from the common fund, it is often so difficult to recover money from a private individual, it is often so hard to distinguish between those who are paupers and those who are not; and further, it is so much to the interest of the guardians not to discourage the removal of the infectious sick to hospital, that we are convinced that in a little while the total expenses will fall upon the Common Poor Fund.

The Managers may under this Act also, with the consent of the Local Government Board, purchase land adjacent to their asylums; they may use their ambulances for the conveyance of the infectious sick to and from hospitals and places other than their own asylums, and thus the admirable service which they have created becomes available for the general use of London; and lastly, their institutions may be used for the purposes of medical instruction. The Act, therefore, in increasing the powers of the Managers, has conferred great benefits on London, and Mr. RITCHIE deserves the thanks of the metropolis for adding its provisions to the statute book.

THE study of epidemiology in its wider bearings has often direct and practical result. Faithfully pursued, there is much to be learnt from this survey of the distribution of infectious disease in various regions, since it is suggestive of some of the primal conditions that underlie the causes of epidemic outbreaks. The modern tendency to refer such diseases to a specific organised virus can, without difficulty, be harmonised with the older established facts upon the geographical distribution of disease, and the climatic and other conditions which seem to play sometimes so large a part in their production. Such at least is the inference to be gained from what is, perhaps, the most recent contribution to the subject—viz., an elaborate statistical survey of the prevalence of diphtheria and croup in Prussia during the eight years 1875 to 1882, by Drs. BRUHL and JAHR, of the Imperial Health Institute of Berlin.[1] By a most elaborate and painstaking comparison of the mortality from these affections in each of the several provinces of this extensive kingdom, these authors not only show how great are the variations in such mortality, but offer an apparently reasonable explanation for these differences, based on the prevailing meteorological conditions of the localities in question. It would be obviously impossible to follow them here through the maze of statistics upon which their conclusions are founded. It must suffice simply to advert to the more striking of their conclusions, which will doubtless be utilised by subsequent epidemiologists. The highest rates of mortality from diphtheria and croup are to be found in the eastern provinces of the kingdom; the lowest in the southern and western districts. It is shown that this mortality is on an average highest among infants of one to two years—which is contrary to the generally accepted belief. Further, it appears that in Berlin and the central provinces, as well as in the west and south, which contain the most thickly populated towns, there is a lesser mortality at this early age, or under one

[1] Diphtherie und Croup im Königreich Preussen, im den Jahren 1875-1882, von D. L. Bruhl und E. Jahr. Berlin: Hirschwald. 1889.

year of age, than in other districts. The mortality is next highest at the ages of from two to five years, and thence up to eighteen, after which it becomes comparatively low. The country yields a higher mortality than the towns; and the influence of the mortality from these causes upon the general death-rate is most marked between the ages of two to five years, for in some provinces these diseases account for nearly one-half of the whole mortality at this period of life. Such statements reveal the terrible extent to which diphtheria now prevails. It is thought to be a "modern" disease; but if this be so, it is no credit to "modern" inquiry and science that it has assumed such enormous proportions. Surely there must be a means for its subjugation yet to be found, since other infective diseases have been so markedly controlled in their extent by sanitation. The authors of this monograph do indeed indicate the lines on which diphtheria is to be met, derived from further facts which they have gleaned from their statistical studies. Thus they claim to have proved that the increase in mortality is closely allied with prevalent atmospheric conditions, the maximum mortality being in those parts of the kingdom where there is throughout the year less equability of temperature and humidity of the air. Where these two conditions are more equable, or where the air is warm and dry, there the mortality is lowest. It is remarkable, too, that the mortality from diarrhœa was higher in Prussia in those years in which the diphtherial death-rate was lowest; and that phthisis seems to prevail most in those provinces in which diphtheria occurs least, and conversely. It is shown that in Berlin the humidity of the atmosphere is greater in January than in July, and the difference in this respect between the air of a dwelling and the external atmosphere is correspondingly more marked in the ormer month, which is also characterised by a far higher mortality from diphtheria and croup (the difference being greater the younger the child), than in the latter month.

Hence the conclusion is made that a primary factor in the individual liability to the diphtheritic poison or in favouring its development is to be found in the change from an environment which allows of a relatively lessened exhalation of water to one which demands a greatly increased withdrawal of water from the respiratory tract. Such a condition is to be found in the difference in winter between the dry overheated air of dwelling-rooms and the external humid atmosphere; and in summer, the converse condition, if the rooms be not well ventilated. The inference is that far more attention should be paid to ventilation, even of the best houses, than is at present bestowed on them; and the authors comment especially in this respect upon the ventilation of sleeping apartments and schoolrooms. By a similar reasoning—which we regret to have to curtail so much—they commend the advice given by OERTEL to apply disinfectant sprays to the diphtheritic throat rather than more forcible local measures of treatment. They regard it of the first importance to maintain the mucous membrane in a thoroughly moistened condition, and consider that this is best attained by means of medicated steam inhalations which permit of being condensed on the lining of the throat. Thus, it is hoped, will the local conditions be less favourable for the growth of the diphtheritic organisms, and a greater opportunity given for the penetration of the mucous membrane by the germicidal agent.

THE value of resident appointments in our large hospitals is justly appreciated by the younger members of the profession. Gladly do they undertake the work, with all its inevitable discomforts and fatigue, and with full knowledge of the risks they incur in the discharge of their duty. They are expected to be at their post at all hours of day or night, ready to cope with all emergencies; and, independently of this, they have arduous duties in their wards, calling for the utmost devotion and self-sacrifice. Their rest may be disturbed by police cases, calling for the utmost caution to avoid errors of diagnosis or judgment, which would almost certainly be followed by all the vexation of a verdict with a rider which might damage the reputation of the institution as well as reflect upon the individual. They may be called up in the dead of night to deal with secondary hæmorrhage or other difficulties arising among the in-patients under their charge, and yet with all these distractions they have to preserve their steadiness of eye and hand to be ready to help in the operating-room, as well as to cultivate the *suaviter in modo* which is so emphatically demanded in all dealings with the sick and with their friends. These requirements are sufficiently onerous, and, we repeat, we believe they are fully realised and worthily fulfilled by the numerous band of young men, to whom so much responsibility is committed only after a long period of probation in ward work, and a careful estimation of their character by the hospital staff. The appointments are valuable, and they are valued. The opportunities for study and for the growth of experience are very rarely, if ever, neglected. It is in no spirit of lack of sympathy that, in view of charges of "hospital neglect" that are every now and then published in the lay press, we venture to address certain admonitory words to those who are so efficiently performing valuable work in alleviating distress and in securing the welfare of those committed to their charge. It is to be feared, however, that occasionally the *suaviter in modo* is somewhat overlooked—not intentionally, doubtless, but merely in the hurry and rush of their official work. Patients prove irritating with their appeals for admission, regardless of the assurance that all the beds are full. The difficulty of satisfying everybody when the necessities of the case require disappointment for many is obvious, still there is a way of conveying even the most unwelcome facts so that they seem perfectly gracious acts of concession. This relationship to the outside public, this task of selection and elimination, is precisely the point upon which, we fear, more attention and more tact are requisite. We are fully alive to the frequency with which wholly unsuitable cases are sent up—a frequency which almost forms a special class which might be termed "subscribers' cases," characterised more by an ardent desire to dispense charity than by a full appreciation of their suitability for treatment. Many cases are thus sent to hospitals, and by their triviality almost challenge brusque treatment; but, after all, the fault is merely the result of well-meaning ignorance of regulations or of an imperfect acquaintance with the true nature of the disease. In

rejecting such cases, signs of irritation in manner or in words are but too likely to alienate the good opinion of a valuable annual subscriber, as well as to cause disquieting general reflections upon the character of the individual. We repeat that we believe these errors of judgment to be quite exceptional; indeed, they may be, from one point of view, regarded as almost non-existent. It is highly probable that, the case once sent off with a few curt words, the whole incident is speedily lost sight of; it may merely be remembered for a few days as an absurd attempt to gain admission which was successfully repelled; but the mode, the manner, the tone—all these are forgotten, or rather they are remembered only by the friends of the patient, or by the charitable people who may come with him, and who bear away hasty and erroneous impressions of the treatment in hospitals, which they are not likely to keep to themselves. The possibility of thus unwittingly injuring the credit of their hospital during their short tenure of office might well be borne in mind by all who are thus brought into contact with the outside world. A hospital lives upon the good opinion of its friends and subscribers, which may be subverted by lack of care in dealing with people who are never truly patients of the hospital. All the wealth of kindliness and devotion should not be concentrated upon the sick in the wards; some of it should be dealt out to the far larger class who seek admission in vain.

A VERY important point in connexion with the isolation of infectious diseases is referred to in Dr. J. MACLINTOCK'S Annual Report on the Health of the Borough of Bradford. The Corporation have for some time past been desirous of erecting a separate hospital for small-pox; and, acting on the advice of the Royal Commission on Small-pox and Fever Hospitals, which advice has been emphasised by the occurrences which marked the Sheffield small-pox epidemic of 1887, it is explained that great care was taken in devising a method of dealing with the contaminated air of the wards so as to render it inactive in spreading the disease. The plans were then laid before the Local Government Board, who, it is stated, "declined to assume any responsibility in connexion with them, or to offer any suggestion calculated to assist." This attitude is one which it is certainly difficult to understand, and this the more since the Royal Commission which recommended the method of construction at which the Corporation of Bradford seem to have aimed was actually appointed at the instigation of the Local Government Board. And not only so, but amongst the subjects referred to them for report were: "The expediency of continuing the several existing small-pox.....hospitals.....; or, if it be considered desirable that they should be closed, the accommodation for small-pox.....cases which should be substituted"; and also, "The general conditions and limitations which should be observed in the case of the establishment of new hospitals whether by the managers, *or any other authority*, so as to insure, as far as practicable.....the protection of the public against contagion." It is true that primarily the work of the Commission related to the metropolis, but it can hardly be contended, in view of the words we have italicised, and of the results of the Sheffield epidemic, that the principles enunciated in the report hold good for one single large town to the exclusion of others.

The Bradford Corporation appear to have been altogether taken aback by the attitude assumed by the Central Authority, and it is stated that they pointed out that it was unreasonable to expect Bradford to undertake a costly experiment on behalf of the whole nation, and that since the department which constituted the head of the public sanitary service could not give local authorities the necessary information as to how they should proceed in this matter, it was their duty to find out a solution of the difficulty. The subject can hardly fail before long to be a pressing one; indeed, Dr. MACLINTOCK aptly remarks that the difficulty is not one for Bradford alone, since "other towns are beginning to feel the need of small-pox hospitals." It seems, therefore, clear that the Local Government Board, who in the past have rendered signal service to sanitary science by other investigations which they have made in the interests of public health, and for preventing the spread of infection, "ought to put themselves in such a position as to be able to advise sanitary authorities upon this important subject."

One other aspect of the question deserves notice. There is just a possibility that the Local Government Board have become so alive to the danger attaching to small-pox hospitals, and at the same time so convinced as to the efficacy, as a preventive of small-pox, of vaccination universally performed at infancy and repeated later on in life, after the manner laid down in the report of the German Vaccination Commission, that they have decided to take no further responsibility in the construction of small-pox hospitals, but intend to use the whole weight of their influence in the direction of the alternative means of prevention. But if this be so, it would be a distinct public advantage if their determination to that effect were made known as soon as practicable.

Annotations.

"Ne quid nimis."

THE ADMINISTRATION OF INFECTIOUS HOSPITALS.

SOME serious allegations have been made or implied against the sanitary administration of the Solihull rural isolation hospital on account of the occurrence of three cases of scarlatina in a row of cottages, to one of which a child had a week previously been returned as a convalescent from the sanitary authority's hospital. The allegations appear to have been based on an error as to the disinfection of the child's clothing, and had also in part to do with some question of partial desquamation about the child's foot. The story is altogether uninteresting, and we think that the imputations were in no way sustained; and this the more because ample opportunities for contracting scarlatina unfortunately exist at this time in and about Birmingham. But the occurrence is of importance as showing how essential it is for sanitary authorities so to organise and administer their infectious hospitals that they may be able to refute all allegations of this sort. For if the public are once led to believe that isolation hospitals fail to prevent the spread of disease, whether by reason of faulty administration, imperfect appliances, or otherwise, they will be

much less ready than they now are to assent to that form of isolation which is so necessary in the interests of public health.

THE WEST-END FEVER OUTBREAK.

ACCORDING to Dr. Corfield's last report, the cause of the outbreak of enteric fever at the West-end remains undiscovered—that is to say, its connexion with any special milk service cannot be definitely shown to have taken place. The difficulties inherent in such an inquiry in the metropolis are admittedly very great; and in connexion with this Dr. Corfield mentions that one firm of contractors, whose milk service was apparently included in the investigation he made, obtain their supply from about sixty different farms in different parts of the country. The bad smells which prevailed in several districts of London during, and subsequently to, the period of the outbreak call for the application of every possible remedy; but it is not at all probable that they were the cause of the somewhat sudden occurrence of enteric fever which simultaneously attacked a number of people in St. George's, Hanover-square, and other neighbouring London districts. In St. George's the outbreak only resulted in two deaths; but the whole story of the prevalence over the entire area affected has not yet been put together.

TECHNICAL EDUCATION.

IT is curious to notice how on every hand the demand for technical education is rising from advocates who have little or nothing in common except the formula which they all with one consent employ. On the one hand are those persons—ill advised persons, as we think—whose scheme resolves itself substantially into the substitution of the secondary school for the workshop as a place of instruction in the "mysteries" of the various forms of craftsmanship. In our own country they have not succeeded in producing much impression. The superiority of the workshop as a place of practical instruction is too pronounced to be overlooked. But in India we gather that they are more influential. At the National Indian Congress recently held at Allahabad a resolution on this subject was unanimously adopted, of which the drift and meaning was that India is not able to develop manufactures by the spontaneous operation of private enterprise, and that therefore it is the duty of the Government to open up an industrial future to its impoverished population by diffusing technical instruction in the industrial arts by means of technical schools. It may well be that in the case of a population like that of India, accustomed for centuries past to depend upon its Government for many things which more independent populations accomplish for themselves, it would be wise to apply principles different from those which would be applicable to our own case in the discussion of this question. But it seems impossible to suppose that technical instruction of this kind could possibly be given with any advantage in a State-supported school. Who would pay any attention to the instruction when no factory or other place where it could be turned to practical advantage existed within a hundred miles of the locality where the school existed? The cure for industrial inefficiency is to be found in the creation of factories, and not of schools, and factories can be better founded by private than by public enterprise. On the other hand, the advocates of a system of technical instruction which is to supplement, but not to supersede, the workshop have among ourselves secured a notable success in the passage of the Technical Instruction Act of the past session. It is quite true that this Act only empowers local authorities to act, and therefore it will not be automatic in its operation. But i will probably be set in motion here and there, and if it gets only slowly and gradually to work, so much the better. Corrections and improvements can be the more easily applied as its operation proceeds. The point of greatest importance, and one which it is a real and great gain to have made good, is that while the rate which the local authority is authorised to levy is to be expended in the teaching of the principles of science and art in their application to specific industries, it is not to be expended upon the actual teaching of the practice of any trade, industry, or employment. The distinction is all important. If the definition serves its purpose and is duly observed in practice, it will accomplish a great good both directly and indirectly. Directly because it will properly apportion between the school and the workshop those parts of a youth's education which they are respectively adapted to advance, and indirectly because it will open the eyes of the public to the importance of theoretical acquaintance with the principles of science on the part of the practitioners of any useful art.

THIRIAR ON VENTRO-FIXATION OF THE UTERUS.

DR. THIRIAR publishes in *La Clinique* an instructive clinical lecture delivered to his class at the Hôpital St. Jean, Brussels, on Ventro-fixation for Prolapsus Uteri. The term he proposes to use for the operation is "hysteropexy," from ὑστερον (the uterus) and πηξις (fixation). The condition of the patient, an elderly woman, who had been suffering from complete prolapsus for the last eight years, was such as to render all exploratory and operative procedures per vaginam difficult in the extreme, as she had ankylosis of the left hip, the thigh being fixed in an adducted position. There was a good deal of pain, and the uterus was visible on the outside of the vulva even when the patient was lying down. Pessaries had been tried, but were productive of no benefit. Under these circumstances it was determined to perform hysteropexy. The abdomen was opened in the linea alba between the symphysis and the umbilicus, and the uterus drawn forwards and fixed to the lips of the wound by three points of strong catgut suture, an iodoform dressing being subsequently applied, which was renewed in a week's time. Seventeen days from the time of operation the wound was healed, and the uterus could be felt high up and firmly fixed, so that the patient might be considered cured. She was, however, kept in bed for three weeks longer, when the uterus, being still firmly fixed, she was allowed to get up. Unfortunately, a fortnight later the prolapsus returned, but no pain or dragging was felt. The only thing to be done was to give her a cup pessary and to discharge her as incurable. In his remarks upon the case Dr. Thiriar points out that the operation is a new one, and a good deal more experience is needed to determine the best method of performing it. He does not think Caneva's plan of cutting down to the peritoneum and suturing the parietal and visceral layers of peritoneum together a particularly practical one, as it prevents exploration for adhesions and removal of uterine appendages if necessary. The plan adopted in this case was that of Leopold, except that catgut was substituted for silk, and no scraping of the epithelial layer of the peritoneum for the purpose of assisting the formation of adhesions was practised. The difficulty of fixing the uterus permanently to the abdominal wall is considerable. Müller of Berne, who amputates the uterus and sutures the stump to the lips of the abdominal wound, has found the adhesions break down and the prolapsus recur. Altogether Dr. Thiriar is not disposed to view hysteropexy with much favour—at all events when performed by itself,—though he thinks there may be cases where the prolapsus is accompanied by hypertrophic elongation of the cervix by rectocele or cystocele, where, as an adjunct to some other

operative measure, it may prove of value. He suggests that the chances of obtaining a permanent adhesion between the abdominal wall and the uterus would be increased by treating the uterus as Juffier treats the floating kidney—i.e., by peeling off the peritoneum from a considerable surface, which is then sutured to the abdominal wall. A lesson which this case teaches is not to be in too great a hurry to publish results. Had this case been published four or five weeks after the operation, hysteropexy would have been credited with a success which would have been entirely unwarranted.

MEDICAL FEES IN LIFE ASSURANCE.

A LETTER which we publish on another page gives expression to the annoyance and disappointment which are constantly arising to medical practitioners from the want of some well-understood practice on the part of the life assurance companies in the matter of their fees for the medical examination of proposed lives. In the case of a policy for a good round sum it is only natural that the companies should insist upon an exact and careful, even an elaborate, examination. In these cases there is rarely any difficulty. The office readily pays a fee of a guinea, or sometimes of two guineas, and the medical examiner furnishes a carefully prepared, detailed report. But it frequently happens that where the policy is to be effected for a small amount only, and the premium will not bear the cost of a guinea fee, a form is sent identical with the form used in the former case. The medical examiner is instructed to make an examination just as searching, and to furnish details just as minute, as for the largest risk that the company would be prepared to undertake, and only learns when his fee is sent down from London, perhaps, or Edinburgh, that the assurance is for a small amount, and that he accordingly is expected to accept half a guinea for his honorarium. This strikes us as being very unfair. It is not unreasonable that where the transaction is a small one the office should seek to economise in the matter of its medical fees, and there are abundant facilities for getting a medical examination made for half-a-guinea. The existing conditions of medical practice secure this advantage to the Life offices. But it is only fair that in such a case the company should be content with a report somewhat less painstaking than what they are accustomed to pay a guinea for, and that when the transaction is of this kind the medical man should be frankly told so at the first, that he may be under no misapprehension as to the terms of the contract under which he does the work required.

TRANSMISSION OF MICROBES TO THE FŒTUS.

THE question of the possibility of the direct transference of the virus of infective diseases from the maternal to the fœtal organism has, since the recognition of the apparent dependence of such diseases upon the presence of microbes, given rise to more than one series of experiments and some interesting clinical and pathological observations. Amongst the latter is a case recorded by Eberth (*Fortsch. d. Medizin*, 1889, No. 5), in which the possibility of such transmission of the typhoid bacillus was raised. It was the case of a young woman, who, in the third week of an attack of typhoid fever, aborted at the fifth month. The fœtus was expelled within its membranes intact, and macroscopically appeared normal; but in the blood, and in fluid expressed from the spleen and lungs of the fœtus, there were found typhoid bacilli (recognised microscopically and by cultivation), which also occurred in the intervillous spaces of the placenta. Drs. Eug. Fraenkel and F. Kiderlen (ibid., No. 17) record a very similar case, in which, however, the abortion (also at the fifth month), though occurring in the third week of an attack of typhoid, was associated with acute peritonitis, found to be due to an ovarian abscess and double salpingitis. The placenta, fœtal blood, and spleen were examined for typhoid bacilli, but with a negative result. On the other hand, cultures of staphylococcus pyogenes were obtained from the spleen. This case harmonised with some others where there was a similar absence of the typhoid organism in the fœtus; but it is pointed out that in all these cases the placenta was normal. It would seem (as in Eberth's case) that the placenta must be diseased for such transference of pathogenic organisms to take place, and the occurrence of hæmorrhage in the placenta appears to be a favourable condition for the transference. In this case, however, although typhoid bacilli were not transmitted, septic organisms were derived doubtless from the suppurating foci in the mother, and probably caused the death of the fœtus from septic infection. Fraenkel about two years ago injected subcutaneously cultures of the bacillus typhosus into three guinea-pigs. Two of them died in three days. They were both pregnant, and the fœtal part of the placenta was found to be hæmorrhagic. The placenta and the fœtuses yielded abundance of the microbes. There have been other and contradictory observations on this subject of the transmission of microbes from mother to fœtus; some asserting it to be usual, others that it requires special favouring conditions. Netter found pneumonococci derived from the mother in a seven-months fœtus; Tizzoni and Caltani found comma bacilli in the blood and serum of a five-months fœtus. The observations are, however, too scanty to permit as yet of the formulation of any definite notions on the subject.

IDIOT AND IMBECILE YOUTH IN GERMANY.

THE conference lately held at Brunswick on the best mode of treating these unfortunates was the sixth of the series, and, like its predecessors, evoked much interesting and reassuring fact. Dr. Sengelmann of Hamburg drew attention to the circumstance that in 1839 Germany had but one asylum for the idiot young; now she has forty-two such institutions, which up to date have had under care and treatment, mental and physical, 16,000 patients. The working staff of these asylums numbers 1200, under whose charge 2400 idiots are now undergoing instruction, while 1850 are being usefully employed, and 1700 are tended merely. Much having been done in their behalf, more yet remains to do—there being multitudes of idiots, particularly in the country, who are harboured in the workhouses, to their own misfortune and that of the other inmates. Germany, indeed, contains 50,000 idiots and imbeciles. For these latter a model institution exists at Brunswick, well worth a visit on the part of all among ourselves who are interested in this department of State medicine. One of its teaching staff, Dr. Kielhorn, led up to an interesting discussion by a paper on the "Imbecile Man in Public Life." He maintained: 1st, that the imbecile child requires a careful schooling, apart from the mentally sound child; 2nd, that the imbecile adult demands in public life special consideration and surveillance; 3rd, that the imbecile man is entitled, in the administration of justice, to exceptional indulgence; and 4th, that he is incapable of military service. As to the first of these positions, Dr. Kielhorn contended that for the effective schooling of the imbecile child its duration should be till the completion of the sixteenth year, the last two years (fourteen to sixteen) including tuition in a specially appointed testing or supplementary school, for which object the present number of such institutions should be adequately increased, with power to add the appliances and resources which educators of the imbecile find necessary. The conference finally resolved on the appointment of a committee to

consider the whole subject as evolved by Dr. Kielhorn, and to formulate the practical suggestions at which it arrived. This committee is to be composed of medical men, lawyers, schoolmasters, and clergymen, and its report will be read before the next conference, which is to meet in 1892 in Berlin.

THE MIASMATIC THEORY OF ACUTE RHEUMATISM.

To most practitioners acute rheumatism must appear essentially a personal or constitutional ailment, occurring most readily under certain unfavourable conditions, such as fatigue, exposure, depression, with wet or cold weather. There is a disposition, however, among some physicians to regard it as dependent essentially on miasmatic conditions. One of the latest expositions of this view is to be found in a paper read before the German Medical Society of New York by Dr. Leonard Weber, and contained in the *New York Medical Record* of Aug. 31st. Dr. Weber considers it nearly proved by the labours of Immermann, Edlefsen, Friedländer, and their pupils, that what he calls inflammatory rheumatism, and what is generally termed acute rheumatism, is not produced by taking cold—i.e., refrigeration of the heated surface of the body; but that it belongs to the class of miasmatic infectious diseases assuming an epidemic-like character at certain times, in so far as we are apt to see a larger number of cases when there is decreasing rain and moisture, while with an increase of the same the number of cases is diminished. Among other points he considers as nearly proved that rheumatism is also a house disease, the subsoil of houses in certain locations being infiltrated with the virus, which, after prolonged dryness, may be set free by the air currents carried into the apartments. In masked forms of rheumatism there may be an absence of one or other of the main symptoms and of the polyarthritis. Neuralgia of the trigeminal, sciatic, spinal accessory, or other nerves, with slight febrile movement, may be of a rheumatic nature, and yield to alkaline and salicylate treatment after other remedies have failed. Dr. Weber says that his records show that the greater number of his cases of polyarthritis rheumatica occurred in February and March, and again in the hot and dry summer months. We do not commit ourselves to the theory of the miasmatic or external origin of acute rheumatism. By the way, Dr. Weber does scant justice to our own countryman, Dr. Maclagan, who must be chiefly credited with this theory, which, indeed, led him to the use of salicin. We incline strongly to the personal and constitutional theory of its origin. But it is well to keep all well-argued theories in view. It is satisfactory to note that Dr. Weber regards the salicylate of soda, which he gives generally with the bicarbonate, as standing in the foremost rank of valuable drugs with which modern chemistry has presented us.

CASUALTIES AT SEA.

THE annual report upon casualties at sea contains a great body of extremely useful and interesting information on the subject with which it deals; but notwithstanding the copious statistics which it furnishes and the elaborate manner in which these statistics are tabulated, we are quite unable to collect from it what, if given, would be the most interesting information of all—namely, the extent to which life-saving appliances were brought into use and the efficiency which they exhibited under trial. The session which has recently closed has registered another disappointment to those who have been looking for some positive and practical outcome to the deliberations of the committee which have been considering this important question at the Board of Trade. So long ago as June last it was publicly stated that the committee had prepared their report; and if anything were wanted to rebuke delay in its production it would be furnished by the appearance in regular course of the long tale of fatalities which contributes the most painfully interesting chapter to Mr. Gray's somewhat dry record. Its production during the recess will not be nearly so effectual for good as its more timely production would have been while Parliament was in session, and although we ought, perhaps, to be grateful for such results as we do realise, it is not without some feeling of disappointment that we record the inability of the Board of Trade to take immediate or effective measures to enforce the adoption by shipowners of the best available means of affording to the passengers and crews whose lives are committed to their care the utmost security which life-protecting apparatus can secure. This is eminently a case in which the work of the department, to be truly effective, must be supported by a body of intelligent public opinion, and it is, therefore, much to be regretted that the sources of public information should not be more numerous than they are, and that, such as they are, they should not be made available to the fullest extent by well-timed publication.

DEATHS FROM HYDROPHOBIA.

A GIRL aged thirteen years died on the 20th inst., in St. Thomas's Hospital, from hydrophobia. She had been bitten in the lower lip two months ago by a strange terrier dog, by which also her father and brother were bitten. The dog was taken to the Dogs' Home, where it was destroyed. No post-mortem examination was held, but it was said not to suffer from rabies. For several days before the definite onset of the symptoms the child was melancholy and moping. On the evening of the 17th she had a catching in the breath when she attempted to drink, and was taken to the hospital at 2 A.M. on the following morning. She appeared wild, and looked suspiciously at everyone. She was able to swallow water, but with a slight choking feeling; at times, when water was offered, she had a kind of "sobbing catch" in her breath. She did not mind running water or cold air. The organs were apparently normal. At noon she could not swallow any liquid at all; even the sight of it caused a spasmodic contraction of the muscles of deglutition and respiration. There was much frontal headache. She was restless and unable to sleep. On the following day, the 19th, she was still more restless, and excited by the slightest sound. The spasmodic contraction of the pharyngeal and respiratory muscles came on every few minutes; they were induced by a touch, the sight of water, or a breath of cold air. The lips and tongue became brown, and the temperature rose to 100°. In the evening she was delirious at times, but rational when spoken to, and the difficulty in swallowing was less. On the 20th the convulsive fits were severe and frequent, the head flexed and fixed, the respiratory muscles and muscles of deglutition were fixed tonically for a few seconds, then clonically for about half a minute. The back was rigid, but without opisthotonos. She was very exhausted after the fits, and several times seemed on the point of suffocation. Morphia was given subcutaneously, also chloral hydrate by the rectum, and chloroform administered for twenty minutes before death, which occurred about 10 P.M. At the post-mortem examination the lungs were congested, but there was no other sign of disease.

Another death is reported as having occurred in the London Hospital. Last May, Mark Allen, aged fifty-seven, a painter, living at Henwood Side, Chigwell, was bitten by a retriever dog. He experienced no inconvenience until a few days ago, when symptoms of hydrophobia were observed. On the 23rd inst. he was taken to the London Hospital, evidently in the last stage of the terrible disease, and he died the next morning.

SIGNALMEN'S HOURS.

OF all occupations, none, perhaps, has been more vexed by the evil of overwork than that of railway service. In its different departments the same excess prevails. Guards, drivers, signalmen are in equal difficulty, and we need not therefore be surprised that a representative committee of the latter class in Birmingham have protested against a system which they feel to be oppressive, and which public opinion as a whole consistently disapproves. If some of the proposals contained in this protest appear to ask for a too radical change in the existing order of things, it must also be remembered that the abuses to be amended have been highly aggravated. According to the new arrangement six days will constitute a working week, eight hours a working day on main lines and in busy shunting yards, ten hours on branch lines and sidings, while pay will range from four to five shillings per day, except in the London district, for which a special tariff is to be fixed. A good deal might be said in favour of each of these projected changes. The first, however, has a somewhat Utopian aspect if we are to assume that it contemplates a cessation of Sunday labour in the signal-box. Such work as this is a constant necessity, and capable at best of reduction only. An eight hours' day is the desideratum of a great many, if not of all workmen. On some busy lines where traffic is nearly incessant, it would not be too short a period. As a rule, we should probably best adapt the exigencies of business to the worker's power of endurance by allowing nine hours as the normal term of service. In comparison with far longer periods of nearly continuous duty with which we have hitherto been only too familiar, it suggests a state almost of positive leisure. Whichever limit is finally agreed upon, it is most desirable that the present unsparing exaction of time and energy should come to an end. We must congratulate the Birmingham committee on their laudable desire to avoid an appeal to Parliament. Special Bills have their advantages, no doubt, but such matters as the regulation of labour are far better settled, if possible, by those concerned on a basis of common interests and necessities.

THE PROPHYLAXIS OF TUBERCULOSIS IN BAVARIA.

AT the instance of the Bavarian Home Office, the Ober-Medicinal Ausschuss (Superior Medical Committee), with Prof. Bollinger as its reporter, has just pronounced on the theory of Dr. Cornet of Berlin as to the spread of tuberculosis, and the best means of checking it. To Dr. Cornet's method and findings it has no exception to take, indicating as they do the danger proceeding from the pulverised sputum of the phthisical, a danger recognised by the profession ever since the discovery of the tubercle bacillus. What the committee objects to in Dr. Cornet's view is his entirely ignoring the influence of heredity and predisposition as factors in producing or inducing the disease. He goes so far as to stigmatise with the epithet "unselige" (fatal) the doctrine (practically and theoretically well founded) of an innate and inherited tendency to tuberculosis. The committee, in answer to the Home Minister's question, whether Dr. Cornet's results would warrant him in accepting these as the basis of practical measures for arresting the diffusion of the malady, remarks that Dr. Cornet's deduction involves an extremely optimistic standpoint, and that it cannot assent to his dictum that "the prophylaxis of tuberculosis attains its end with the simplest means imaginable." Measures of State for the prevention of the disease must await the solution of the problem whether in the genesis of tuberculosis contagious infection or inherited tendency plays the chief part. Dr. Bollinger, before an audience of the first Upper Bavarian Medical Diet recently proposed that the State prisons, in which the mortality from tuberculosis averages from 38 to 60 per cent., should be utilised for the experimental determination of the difficulty. With this view a prison should be repeatedly cleansed and disinfected as if it harboured plague or small-pox. Every case, moreover, of tuberculosis occurring in it should be isolated, or, better still, cleared out. The reduction, or disappearance in these circumstances of the tuberculous cases would prove that infection proceeding from the phthisical or from the infected locality played the chief part, and that inherited tendency was the less important factor. The committee concludes that the Home Office should institute the investigation thus recommended, and, considering the importance of the matter, should provide the necessary grant without delay. Meanwhile, our readers may be reminded that Dr. Cornet, with a dust suspected to be tuberculous, obtained by scrubbing a wall of from one to two square metres with a sterilised sponge, infected 392 porpoises, and that of these 196 shortly thereafter died under acute septic and purulent attacks, while the survivors remained partly unaffected, partly tuberculous—the latter dying in from thirty-eight to fifty days after infection. The whole subject, indeed, is agitating the profession in Bavaria to its depths, and the medical societies which meet during the second half of October have received from the Home Office a mandate to discuss the criticism passed by the Upper Medical Committee on the practical application of Dr. Cornet's views.

THE NEW PHARMACOPŒIA GERMANICA.

NEXT month the Reichs-Pharmacopöie Commission (Imperial Pharmacopœia Commission) meets in Berlin to frame a new (that is, the third) edition of the Pharmacopœia Germanica, so as to have the work completed for 1890. The scientific discoveries or inventions, and the practical experiences made known in materia medica since the publication of the second edition, will in this forthcoming one be incorporated, and rendered available. At the same time, it will not undertake, any more than its predecessors, to set forth all those remedial agents which individual German physicians have prescribed and apothecaries have made up. In the preparation of these remedies the most diverse rules and prescriptions have been followed, resulting in inconveniences and errors, sometimes serious to the public and compromising to the profession. To obviate or minimise this confusion, the German *Apotheker-Verein* (Society of Apothecaries) has resolved to issue a supplement (*Ergänzungsbuch*) to the forthcoming Pharmacopœia, which shall deal with all the remedies not given in the official dispensatories, and put the prescriber *au courant* with the latest and most accredited additions to his resources, both as to chemical quality and preparation. The profits accruing to the Society from the sale of this supplement will, it announces, be devoted to a philanthropic purpose.

FALSE TASTE IN DRESS.

As was to be expected, a paper lately read before the British Association by Mrs. Carmichael Stopes on "Errors in Women's Dress" was warmly received, and formed the starting point of an animated discussion. In this article the fallacies approved by women in regard to dress were divided into two classes: those which merely infringed the laws of art, convenience, or sense, and those which left their mark in permanent injury. The former division comprised a host of ungainly fashions and so-called improvers as crinolines, lengthy trains, tight sleeves, and the like, the latter such mischievous devices as the high heel and the tight corset. As a consequence of their use healthy exercise and even free movement were, said Mrs. Stopes, impossible, uncleanliness and infection clung to the trailing

skirts, walking on high heels became a mitigated hobble and strained the whole body, and grace, when enclosed in whalebone, a synonym of perverted development and consequent ill-health in which posterity claimed a share. In the discussion which followed, the practice of tight lacing received a principal share of attention. There were several avowed champions of the corset, evidently more or less under the impression that the dangers of tight lacing had been exaggerated. The balance of medical opinion of course supported an opposite view, and this was fortified by the president's experience of injury done to the viscera, and actually traceable to persistence in this disfiguring custom. Such questions as this are not of a kind to be settled in the course of a few academic discussions. The clue to their true method of solution was suggested by the lecturer when she referred to a pernicious dress custom as a falsification of truth. It is the dislike to simplicity, the hankering after showy, though false, ideals, which are mainly accountable for the patience of women under the deforming yoke of fashion. Their emancipation, therefore, cannot be the work of a day. It will not be brought about by the warnings of experience alone. The process of training must go deeper, and act on taste by affecting the moral sense on which it is moulded.

UTERINE TUBERCULOSIS.

AN interesting case of primary tubercular disease of the Fallopian tubes has occurred in Professor Lebedeff's wards. The patient, who was the widow of a man who had died of phthisis, was of a cachectic appearance and suffered from amenorrhœa. On examination, a firm, nodulated, intra-abdominal tumour was made out, situate in the space of Douglas. An attempt was made to remove the tumour, but had to be given up as disseminated miliary tubercle was found affecting the peritoneum. The intestines and the uterine appendages too were all matted together. Six weeks after the attempted operation the patient died with symptoms of general tuberculosis. At the post-mortem examination miliary tuberculosis was found affecting the peritoneum, the lungs, the pleuræ, the colon, and the mucous membrane of the uterus. Both the Fallopian tubes were dilated and filled with pus, the epithelium in parts being absent. The intensity of the destructive process was greatest in the tubes, and became less marked towards the periphery. In sections, tubercle bacilli were found; there was no tuberculosis, however, in the ovaries, and only the mucous membrane of the uterus was affected.

THE SUFFOLK GENERAL HOSPITAL.

WE much regret to learn that the affairs of the Suffolk General Hospital at Bury St. Edmunds have again assumed a critical phase; and the three members of the medical staff have once more sent in their resignations. It may be recalled that about six months ago a proposition to increase the staff did not meet with the approval of the present members, who saw no necessity for it; and that after two animated meetings it was decided to postpone the question for twelve months. Some of the governors do not seem to have been satisfied with this, and on the 17th inst. a meeting was held on the requisition of five governors to consider the bye-laws which dealt especially with the medical staff in its relation to the government of the hospital and also with the constitution of the staff. The medical men absented themselves from the meeting, but sent a firm protest against the proposals, which, if carried, would have involved a decided subordination of the medical to the lay government. Their supporters at the meeting, too, were in a minority, and retired after failing in their endeavour to urge a more reasonable course upon the meeting. The remainder of those present, some twenty in all, proceeded to pass resolutions amending the bye-laws, and recommending the appointment of a fourth medical officer. Under these circumstances there could be no other course open to Dr. Image, Dr. McNab, and Mr. Kilner than to send in their resignations. The institution will suffer a severe blow from this singular lack of consideration for its honorary officers, and there is likely to be much further difficulty in store for it, especially when it comes to the question of filling up the vacant appointments.

ANTISEPTIC ACTION OF CHLOROFORM AND OTHER VAPOURS.

DR. SEGALL has published in the *Münchener Medicinische Wochenschrift* an account of some observations in which he has been engaged with the object of determining the amount of antiseptic action possessed by the vapour of chloroform, of formaldehyd, and of creolin. The method employed was to infect the jelly (previously liquefied) in a test-tube with the particular microbe under investigation. After the infected jelly had been allowed to solidify, a small tube containing chloroform, creolin, or a 10 per cent. solution of formaldehyd was suspended over it, so that the surface of the jelly should be exposed to the action of the vapour given off, the mouth of the test-tube being closed with a well-fitting plug of cotton wool. The greatest effect was produced by the vapour of chloroform, this being found to have a nearly equal effect on all the different bacteria experimented on, these including staphylococcus pyogenes aureus, bacillus prodigiosus, and the bacilli of pneumonia, of typhoid, of anthrax, of cholera, &c. The upper part of the jelly remained clear and free from microbes, while the deeper layers presented evidences of the existence of numbers of colonies. In the tubes containing formaldehyd, though only in a 10 per cent. solution, there was also a great difference between the superficial and deep layers; while when creolin was employed this difference was much less marked, though the antiseptic action was greater than that of the fumes of carbolic acid, which have been shown to exert no preventive action on jelly cultures of the cholera microbe.

COCAINE POISONING.

DR. VINOGRADOFF gives, in the *Ejenedélnaya Klinicheskaya Gazeta*, an account of the post-mortem examination in a well-known remarkable case of cocaine poisoning, where a young woman who was suffering from a tuberculous rectal fistula was given twenty-two grains of cocaine by means of repeated rectal injections in order to produce local anæsthesia for an operation which consisted in scraping the anterior wall of the rectum with a sharp spoon. In a quarter of an hour the patient became excited, and began to suffer from clonic spasms in the limbs, opisthotonos, and cyanosis. Death occurred from asphyxia, in spite of tracheotomy and prolonged performance of artificial respiration. At the post-mortem examination the blood was found to be fluid, and of a dark brown colour, as in cases of poisoning with chlorate of potash. There were hyperæmia of the brain and of the lungs, exudative glomerulo-nephritis, evidently of long standing, together with ulceration of the colon and rectum, reaching down to the submucous tissue. Microscopically, there was found albuminoid degeneration of the nerve cells, of the cerebrum, of the heart muscle, of the liver cells, and of the epithelium of the urinary tubules. Dr. Vinogradoff compares this with three other published cases of death from cocaine poisoning, and with cases in which large doses had been given with and without the occurrence of toxic symptoms, and shows that as much as forty-five grains have been borne without any ill effects.

The fatal result in the foregoing case—which, it may be remembered, led to the suicide of the distinguished surgeon who operated—is to be ascribed to the increased power of absorption of the ulcerated intestinal wall, and to the retardation of the kidney secretion by the diseased condition of the glomeruli. It would therefore appear that when there is any question of giving large doses of cocaine a careful examination should be made of the condition of the kidneys, and if there is any ground for supposing them to be diseased or functionally inactive the greatest caution should be employed. It may be remembered that before operating the unfortunate surgeon asked one of his colleagues, who was a professor of therapeutics, what dose of cocaine might safely be given, the answer being, "Not more than two grains." So that the greatest diversity of opinion exists regarding the maximum dose of the drug.

SECONDARY EFFECTS OF PARENCHYMATOUS INJECTIONS AND EXPERIMENTAL PUNCTURE.

DR. DECKER reports to the *Münchener Medicinische Wochenschrift* the following two interesting cases from his clinic in Würzburg. A strong girl of twenty years of age, who had borne six previous parenchymatous injections of mercury well, presented after another injection of one-third of a grain of carbolate of mercury into the nates marked symptoms of collapse—that is to say, dyspnœa, marked cyanosis, œdema of the eyelids, small pulse, and vomiting. The same symptoms of collapse appeared in another female patient after an experimental puncture in the hepatic region, and the author believes that the same cause led in both cases to the same result—namely, traumatic excitement and consequent paralysis of the vasomotor nerves, leading to marked abdominal plethora, cerebral anæmia, irregular action of the heart, and venous congestion.

ASYLUM MANAGEMENT IN NEW ZEALAND.

A BLANK petition for presentation to the Honourable the Legislative Council of New Zealand has been sent to us which embodies many points which it is desirable should be secured in the management of asylums either for inebriates or the insane. Amongst others, the petitioners pray that medical officers should not be appointed to such institutions without having had special experience or training in this branch of medicine. The only question about such a petition is whether the prayers of it are not so obvious as to be superfluous.

TYPHOID FEVER IN BUDA PESTH.

THE text of a report of the medical officer to the city of Buda Pesth, Dr. Gebhardt, upon the prevalence of typhoid fever there, appears in the *Allg. Wiener Med. Zeitung*, Nos. 37 and 38. It appears that since August, 1888, the number of cases of this fever had risen remarkably, with the exception of April and May of the present year, reaching to as many as 647 in August, 1889, as against 337 in July and 104 in June. The total number of cases for the whole of 1888 was 1667, the deaths being 150, giving a mortality of nearly 9 per cent.; whilst during the next seven months and a half (to Aug. 15th) the cases amounted to 1404, deaths 190, or a mortality of 13·6 per cent. Dr. Gebhardt lays stress in his report upon the diffusion of the disease by means of drinking water, and calls attention to the defective sanitation of the city in respect to drainage and water supply. He closes his report by asserting that until the inhabitants will drink filtered water, and the drainage and dwellings in the city be improved, no diminution in infectious disease can be expected.

THE SOCIETY OF GERMAN PHYSICIANS AND NATURALISTS.

IN the sixty-second Congress of this Society, which, last week, concluded its sittings at Heidelberg, natural history preponderated over medicine, while both had in great measure to give place to discussions bearing on the organisation and standing rules of the Society. These, as of local, rather than of international, interest, need not be noticed further than to remark that they will immensely enhance the efficiency and authority of a Society which, as its President, Professor Quincke, showed in his opening address, had more than quadrupled its membership since its origin in 1827, and had increased its sections for special discussions from six to thirty-two! Of purely medical interest were the proceedings in the section for "Climatology and the Hygiene of the Tropics," in which that quarter of the globe as a residence for Europeans was the theme of learned and animated discussion—the question of "Malaria," its nature and origin, its prophylaxis and cure, receiving particular attention. Professor Minkowski of Strasburg enlivened the section for home-medicine (*innere Medicin*) with a report of his investigations on "Diabetes Mellitus, as a Consequence of Extirpation of the Pancreas." His deduction from these, that this grave malady must be referred to impairment of function in that viscus, was keenly debated and obtained provisional acceptance from some of the participants in the discussion.

PATHOLOGY OF SEVERE BURNS

DR. OSCAR SILBERMANN of Breslau, studying the clinical and pathological signs of the destruction of numerous red-blood corpuscles, found by his experiments: 1. That after extensive burns of the skin the red blood-corpuscles alter their form and lose their power of resistance to heat, drying, compression, and staining. 2. In consequence of these alterations numerous thromboses in the arterioles and capillaries, especially in the finer branches of the pulmonary artery, occur, leading to stasis in different organs—e.g., lungs, kidneys, stomach, bowels, liver, spleen, skin, and brain. 3. The large deviation of the pulmonary capillary circulation produces a considerable impediment to the emptying of the right heart and serious venous congestion, as well as dangerous arterial anæmia. 4. This state, coupled with the above-mentioned symptoms, leads to bleeding and parenchymatous alterations in the affected organs. 5. The interference with the circulation also produces dyspnœa, a small pulse, angina, eclampsia, and anuria, as well as a remarkably low temperature.

HEALTH AND SPIRITS.

WHATEVER may be thought to the contrary, the standard of health is as liable to fluctuations as the weather. The barometer is, in a measure, the gauge of the state of the weather, but we have no instrument for estimating even with an approach to the truth the state of the vitality of any individual. The customary salutation, even when replied to in the usual adverbial manner, is certainly no accurate criterion of the state of the health, since a general paralytic often *feels* much better than he has any physiological right to do. And, in opposite fashion, a man who does not know how he feels may be in first-rate health, or at least in a splendid condition for opposing those forces which are constantly tending, like the force of gravity, to bring a man to earth. Everyone knows, in greater or less degree, that which makes for his physical welfare, but it is not always realised to the fullest extent that an improvement in the *feeling* of health is by no means always desirable in the interests of longevity. To feel extraordinarily well costs

much, and the excessive expenditure of mental force may derange a considerable number of corporeal functions. The desire to want to be in good "form" requires restriction in the case of many nervous individuals, whose powers are not always equal to their appetite for high spirits.

TUBERCULOUS MILK.

AT the first general meeting of the South Durham and North Yorkshire Veterinary Medical Association, held at Darlington on the 18th inst., an address was delivered by the President, Mr. Nettleton of Northallerton. In the course of his remarks he referred to the transmission of diseases from animals to man, and especially dealt with the subject of tuberculosis, which he said was a source of contamination of milk; and he remarked that the number of diseased cows in England at the present time was enormous, and yet as long as they could walk and the mammary glands secrete the milk was used for human consumption. It had been demonstrated that calves dying from acute diarrhœa when a few months old, having been born of healthy parents but suckled by a tuberculous cow, owed their death to tuberculosis. He believed there would be less human phthisis were measures taken to stamp out the disease. Another feature, he pointed out, is that the cream is always richer in the milk from a tuberculous cow—a "richness" which, he suggested, might be due to the admixture of pus with the secretion. (!) The disease is more common in Alderneys and Guernseys; he had never met with it among black cattle.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

THIS well-known society shows by its last annual report that it fully maintains the reputation it has acquired for useful sanitary and philanthropic work. Amongst the matters dealt with during the past year were questions relating to the Manchester bye-laws, the control of infectious diseases, especially in relation to school attendances, the closure of the Ardwick cemetery, the insurance of infant lives, cheap baths, &c.; and the Association also made representations to the Government to urge that medical officers of health should be dismissible by the central authority only. Conferences relating to the high death-rate of certain parts of the city of Manchester, and health lectures for the people, were also held. One special feature of the association is the valuable help it secures from educated ladies in connexion with visits to the homes of the poor, the provision of cheap meals for children, and the children's holiday fund. The association also carries out its valuable labours in such a way as to secure the hearty co-operation of the medical officers of health of the districts with which it deals.

OPHTHALMIA IN THE STRAND SCHOOLS.

A DISCUSSION arose at the Strand Union meeting last Tuesday on the reading of the report of the medical officer in charge of these schools. One member of the board, Mr. Prescott, moved that the children afflicted with ophthalmia be bathed separately from the other children. He said there were 166 cases of ophthalmia at the schools out of a total of 330 children, and that was a terrible state of affairs. Only nine of the sufferers were in the hospital, the remaining 157 being in the body of the schools with the healthy children. The guardians had a great responsibility in the matter, it being a well-known fact that ophthalmia frequently ended in total blindness. Mr. Dart, in opposing the motion, said he thought it was great assurance for anyone to interfere with the doctor at the schools. The motion was then put and lost. We may, perhaps, have occasion to refer to this subject again.

TORTICOLLIS IN INFLAMMATION OF THE MIDDLE EAR.

TORTICOLLIS, when it occurs in the course of acute otitis media, has generally been looked upon as a very serious complication due to periostitis of the mastoid process, and the formation of an abscess, with myositis of the sterno-mastoid. That this is not always the explanation of the complication is shown by Dr. Radsikh in an article in the *Meditsinskoë Obozrênië*, in which he gives an account of a case of inflammation of the middle ear following measles, which on the third day became complicated by torticollis, this being due to periadenitis of the neck, and Dr. Radsikh suggests that in these cases enlarged and inflamed glands in the neck may frequently be the cause of wry neck.

FEVER IN LONDON.

THE number of cases of fever in the hospitals of the Asylums Board was 1320 at the end of last week, as against 1000 a month before. During this period, 649 fresh cases have been admitted and 240 have been discharged as recovered. Of the cases under treatment, 1123 were cases of scarlet fever, 108 of diphtheria, 80 of enteric, and 2 of typhus. The appearance of typhus at this period of the year would in past times have led to the fear that the disease would attain unusual prevalence; it is, however, so long since this disease was practically banished from our midst that, without exceptional distress and an exceptionally cold winter, there is no reason for thinking that there will be any prevalence of this fatal malady. One of the cases occurred at Battersea, and may perhaps be related to the return of hop-pickers. Again no case of small-pox is known to have occurred during the month.

HYDROCEPHALUS.

DR. RODIONOFF mentions in the *Meditsinskoë Obozrênië* a somewhat remarkable case of recovery from chronic hydrocephalus in a child of eleven months old. The mother took good care of it until it was two years old, and then left it to itself. It was thus exposed to a hot sun for many weeks, and, strange to say, a year later the size of the head had diminished, and the child was able to creep about. When it was four years old the hydrocephalus had disappeared, and the child was able to talk. Dr. Rodionoff seems disposed to refer the cure to the action of the sun's rays.

TUBERCULOSIS IN SLEEPING CARS.

DR. WHITTAKER of Cincinnati has lately (*Nashville Journal of Medicine and Surgery*) drawn attention to the palace car as a medium for the dissemination of tuberculous disease. He says that the cars, owing to the caprice of individual travellers, are generally ill-ventilated, and there is no regard paid to the liability of infection through the sputum. The point is the same as that raised lately by a traveller in the *Australian Medical Gazette* with respect to ships' cabins; but, as Dr. Whittaker says, in some of the express trains a passenger may be literally confined in an atmosphere containing tuberculous dust for days together. He urges the replacement of plush by leather, of carpets by rugs, of curtains by wooden or leather screens, and *inter alia* the provision of separate compartments for invalids or consumptives travelling in search of health. The destruction of the sputum is, in his opinion, the main point to be aimed at.

FOREIGN UNIVERSITY INTELLIGENCE.

Bonn.—Dr. Fritz Roll, assistant in the Botanic Gardens, Würzburg, has been appointed Extraordinary Professor of Botany.

Freiburg.—Dr. Max Knies has been promoted to the rank of Extraordinary Professor.

Gratz.—Dr. von Wagner of Vienna has been appointed Extraordinary Professor of Mental and Nervous Diseases.

Lausanne.—Dr. H. Stilling of Strasburg has been appointed Professor of Pathological Anatomy.—Dr. Bourget of Geneva has been appointed Professor of Materia Medica and Therapeutics.

Rostock.—Dr. Berlin of Stuttgart has been appointed to the chair of Ophthalmology, vacant by the resignation of Dr. von Zehender.

Tomsk.—Dr. Sadoven of St. Petersburg has been appointed Professor of Physiological Chemistry. There are thus two professors of chemistry already in this newly-established university, which at present possesses only a portion of one faculty—the medical, Dr. S. Zalêski having charge of the general and medical chemistry.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. M. Perrin, Professor of Operative Medicine in the French Military Medical School of Val-de-Grâce; Dr. Marcantonio Barba, formerly Professor of Surgery in Messina.

ACCORDING to a telegram from Cape Town the Colonial Secretary, in reply to a deputation requesting information in regard to the Robben Island Leper Hospital, said that the anxious care of the Cape Government had long been devoted to the matter of leprosy generally, with the result that the disease in the colony had remained stationary, whilst the condition of the lepers themselves had greatly improved. The accommodation for lepers on Robben Island was vastly superior to that which they could obtain in their own homes. The stay of the patients on the island was voluntary, and relatives were continually permitted to visit them. The Government had for some time past been considering measures for effecting further improvement in the treatment of lepers and for their compulsory segregation under the Leprosy Repression Act.

FROM statistics compiled by the Egyptian Sanitary Department, it appears that in all the principal towns in the Delta, excepting Damietta and Rosetta, the death-rate exceeds the birth-rate from the end of May to the beginning of August, during which period the Nile water is most impure, owing to the lack of current. At that season the inhabitants of Damietta and Rosetta use water stored in cisterns, owing to the brackishness of the river water. This would (says the correspondent of *The Times* at Cairo) point to the necessity of adopting measures for purifying the Nile, upon which Egypt is dependent for her water-supply.

THE Italian Medico-military Office will shortly issue its report as to the sanitary condition of the army during 1887. The statistics collected from every branch of the service show a considerable improvement, we understand, over those of 1886. Admissions into hospital, which in 1886 had been 798 per 1000 of the force under arms, was reduced in 1887 to 760 per 1000. The mortality for the latter year, moreover, was 8·74 per 1000, as against 9·31 per 1000 for 1886.

WE very much regret to learn that Mr. Eustace Hill, son of Dr. Alfred Hill, medical officer of health for Birmingham, who has been serving as one of the resident medical officers to the Borough Infectious Hospital during the present severe epidemic of scarlatina, is himself suffering from the disease, and has exhibited serious symptoms. We sincerely hope that his condition will speedily improve.

WE understand that the Anglo-American Continental Medical Society, recently formed, will hold its first meeting in Paris on Monday, the 30th inst., when Sir Spencer Wells will preside, Professor Ball acting as vice-president. The meeting will be followed by a dinner.

THE first meeting of the Obstetrical Society of London for the coming session will be held on the evening of Wednesday, Oct. 2nd, at eight o'clock, at the Society's library, 54, Berners-street, next door to the rooms recently vacated by the Royal Medical and Chirurgical Society.

Pharmacology and Therapeutics.

NAPHTHALIN IN TYPHOID FEVER.

DR. C. SEHRWALD has made some bacteriological experiments in Prof. Rossbach's laboratory, from which he draws the following conclusions:—1. Naphthalin retards but slowly in the temperature of a room the development of the bacilli of putrefaction of fæces, and of typhoid. 2. Naphthalin finely powdered and well spread, or in solution and continually shaken, has its disinfecting power increased. 3. In a temperature of 98° the effect of naphthalin is much more powerful, which makes it highly probable that it is chiefly in its gaseous state that it destroys the germs. 4. Gaseous naphthalin in solution has more effect on aerobic than on anaerobic bacilli, and more on germs cultivated in a solid medium than on those cultivated in liquid. 5. The conditions for the full effect of naphthalin are much more favourable in the intestines than in the test-glass. 6. Naphthalin added to fæces decreases their germs by about a half, but, administered internally, it first decreases them to one-third or even a quarter; after this, however, their number rises again almost to its original figure. 7. Against the bacilli of typhoid stools naphthalin is considered still more effective, and decreases the number of the germs even to one-tenth. 8. The administration of naphthalin should be commenced at the very beginning of typhoid fever. 9. As calomel affects some of the fæcal bacilli, while others are more readily destroyed by naphthalin, it is best to give, whenever possible, both drugs combined.

MERCURIAL INUNCTIONS IN GLANDERS.

Dr. Gold publishes in the *Meditsinskoë Obozrênie* a detailed account of a case of glanders which was successfully treated by a prolonged course of mercurial inunctions. The patient was a young peasant, and though he was unable to trace his illness to any contact with glandered horses, experimental observations on guinea-pigs proved quite clearly that he was suffering from glanders. Half a drachm of mercurial ointment was rubbed into the skin twice a day, and the condition of his mouth properly attended to. He was also kept on highly nourishing diet. The tumours on different parts of the body were opened, and in some cases the edges of the wounds pared or touched with the actual cautery, antiseptic dressings being employed throughout. No less than sixty-eight frictions were employed, and the patient was kept five months in hospital before being discharged cured. The good effects of the treatment began to show themselves after twenty inunctions, the tumours becoming softer and the fine crepitation in the lungs disappearing. Dr. Gold points out that no reliance should be placed on the denial of patients of having had to do with diseased horses, the only sure guides to a correct diagnosis being bacteriological observations and the experimental infection of animals with the purulent matter from the tumours. Again, he thinks this case shows that even very severe cases of glanders may sometimes be treated successfully by a persevering employment of mercury, either by inunctions or hypodermically.

QUININE COMBINED WITH MERCURIAL INUNCTION.

Dr. Dymnitski records in a Polish medical journal the treatment of 178 cases of syphilis by means of quinine together with mercurial inunction. In some cases the quinine appeared to enhance the value of the mercurial treatment to a very remarkable extent; in others it appeared to be of no advantage. This method of treatment was most successful where

considerable variations of temperature, pulse, and weight existed. Thus it was found that in the cases where the treatment was decidedly successful the temperature was subject to a variation of 1·5° C or more, the pulse varied at least 26 beats, and the weight at least 10 lb. On the other hand, in the cases where this treatment was not successful, the temperature did not vary more than 1·2° C., the pulse not more than 18 beats, and the weight not more than 8·3 lb. The quinine was given in doses of from fifteen to twenty-two grains per diem. In many of the successful cases there had been a good deal of ulceration; this rapidly improved, the temperature fell, and the general condition underwent a marked improvement; but if the quinine was stopped the patient often became worse again. It should be said that care was taken to exclude cases in which there were any traces of malarial fever.

PEROXIDE OF HYDROGEN IN NECROSIS OF THE JAW.

Dr. A. Lohmann of Cassel communicates to the *Deutsche Medicinische Wochenschrift* several interesting cases from his dental practice. The first was that of a woman of thirty-two years, suffering from necrosis of the left lower jaw. A sequestrum with both bicuspids was completely separated, and without trouble or pain removed; the posterior portion, which still contained a molar, was freely movable and full of pus. After several injections of peroxide of hydrogen the discharge of pus entirely disappeared, the gum regained a healthy colour, and in about a fortnight the patient was quite cured. The second case was that of a civil engineer, twenty-six years old, whose left upper jaw was diseased. After removal of the sequestrum, which contained the last tooth and a bicuspid, peroxide of hydrogen was injected into the diseased alveolar processes at once and several times during the following days, and in a week the patient was completely cured. The author has even cured a case of alveolar pyorrhœa by this method.

RUBBER BANDAGE IN INDIGESTION.

Dr. Wettendorfer, while using a Martin's rubber bandage, applied round the waist in a case of chronic eczema, became aware that this treatment seems to be capable of acting beneficially on the digestive organs, curing gastric catarrh and the sense of oppression complained of by dyspeptics, and, as a result of this action, improving in a marked degree the digestive functions. How the bandage acts Dr. Wettendorfer is unable to say, further than that he supposes it is by exerting a mechanical pressure on the organs of digestion, and possibly by causing the bodily heat of that region to be retained. As to the particular classes of cases in which the rubber bandage is suitable only further experience can decide. The bandage should be worn for about an hour after meals, and should be applied over a surface about ten inches in depth.

SALIDAGO VIRGA AUREA (GOLDEN ROD) AS A DIURETIC.

Dr. Theodor Clemens of Frankfort, in a communication to the *Allgemeine Medicinische Central Zeitung*, once more recommends golden rod (Salidago virga aurea latifolia) as a diuretic, following in the footsteps of Ettmüller, Rademacher, and Mascarel, and correcting the mistake of Mascarel, who had looked upon the plant as a new remedy. Dr. Clemens praises this drug above all other diuretics, having relieved or cured a large number of patients by its administration. When there has been difficulty in obtaining it from pharmacists, he has frequently gone out into the woods and gathered the plant, and made preparations of it himself for his patients.

ANTIFEBRIN IN TONSILLITIS.

Dr. Sahli has found, both from personal experience and from numerous observations on patients, that moderate doses of antifebrin will almost invariably give great ease in cases of acute tonsillitis, thus allaying the distress of the patient and enabling him to swallow food, stimulants, or medicine. The dose he employs is seven and a half grains, which he usually orders in a mixture with spirit and syrup, which must be shaken up before being taken. This is sufficiently agreeable to be taken readily even by children. Dr. Sahli mentions that he has found great benefit from this treatment in scarlatinal sore-throat.

GUM BENZOIN IN ULCERATED LEGS.

Dr. Zitrin, writing in the *Voënno Sanitarnoë Dêlo*, strongly recommends the use of powdered Siamese gum benzoin as a local application for chronic ulcers of the leg. An ointment was used by Dr. Voskresenski for the same purpose; but Dr. Zitrin thinks the powder is preferable, especially on economic grounds. He ascribes the beneficial action to the antiseptic and stimulating effect of the benzoic acid, of which the Siamese benzoin contains about 14 per cent.

WOOD ASHES IN WHITLOW.

Dr. Kappesser of Darmstadt has for many years treated commencing whitlow very successfully by making the patient hold the affected finger very frequently in a hot lye made by steeping a handful of fresh wood ashes in half a pint of boiling water. A rag soaked in the same liquid is also applied round the finger when it is not immersed in the lye. In this way the whitlow can be cut short, especially if the treatment is commenced as soon as the first symptoms of the disease present themselves.

EAUX BONNES.

BY DR. DOBREE CHEPMELL.

A LOVELY place, this Pyrenean hamlet, 2500 feet above sea level—one steep, wide street of hotels with a garden in its midst. On east and west, cliff-like hills, 1000 feet high, green and beech-wooded to their tops, with here and there a snowy *pic* peeping over the shoulders of its smaller brethren, as if to see what the world is doing in the shady gorge below. The sky hardly forms part of the picture, a turquoise velarium only, stretched across like an awning from the high crest of one green hillside to that of its *vis-à-vis*. Beneath, at the head of the ravine, surrounded by planes and lindens, in air soft and cool, without wind, without rush, stands the Temple of Hygeia, known simply as "La Buvette." Hither daily, from 5 A.M. till dusk, during the short thermal season of July and August, crowd pallid sufferers from Russia, Spain, Holland, America, with a very few English, to drink their prescribed measure of the Source Vieille. The temperature of this spring is 82° F. or thereabouts; it has a strong sulphurous smell, with little or no taste. In mineral ingredients the water is marvellously rich, and seems to be a very watery extract *à la* Liebig of all the Pyrenean strata. Besides the ordinary components of most sulphur springs, there are found here, according to the careful analysis made by Dr. Garrigou in 1876, elements such as lithium, cæsium, rubidium, glucine, cobalt, nickel, antimony, and arsenic in appreciable quantities. Nature in this instance has indulged with a vengeance and *à la barbe de la Faculté* in the most undeniable polypharmacy.

A century and a half back the Eaux Bonnes were practically unknown, but towards 1750 Antoine Bordeu and his son Théophile, both men of energy and acumen, and practising in the valley of the Ossau, drew attention to the remarkable cures effected by these waters in pulmonary complaints. Not only were men relieved of chronic catarrhs and cured of consumption, but also were the maladies of animals—horses, donkeys, and goats—in like manner favourably influenced by the sulphur springs. Since the days of the Bordeus the reputation of Eaux Bonnes has been on the increase. It is said that much of the virtue of Eaux Bonnes depends (and this is also the opinion of Dr. Leudet, a most competent authority) on the stability of the sulphurous ingredients. A silver coin, newly minted, will, if immersed in the water, remain bright for some time; whilst, when dipped in that of other sulphur springs, the metal tarnishes readily. If administered to a dog, the animal's breath will shortly blacken a sheet of blotting paper wetted with a solution of a lead salt, showing that the principal element is largely exhaled from the lungs. Most of the drinkers whom I questioned were suffering from chronic bronchitis or fibroid phthisis. They told me that at first the water produced a slight feeling of nausea, with, as the treatment proceeded, a marked decrease, and presently a total cessation, of mucous expectoration. One man, long a sufferer from bronchorrhœa, remarked, "I no longer spit, nor even blow my nose, and I am very constipated; but, on the other hand, I pass quantities of water." And such really sums up the immediate action of the Eaux Bonnes. Dr. Leudet calls them "*des eaux désséchantes.*" Dr. Cazenave de la Roche, in addition, urges their anti-parasitic virtues, and

backs his opinion by referring to the experiments of Froschauer and Niepce as proving the destructive power exercised by sulphuretted hydrogen on the lower forms of life. Whatever the theory as to the *modus operandi*, the fact remains that in certain kinds of phthisis—e.g., fibroid degeneration with profuse bronchorrhœa—the benefit is very marked, and in many instances the gain is almost immediately appreciable. During the three or four weeks of my stay, I noted with interest the progress of these bibulous ægrotants, and can testify to the rapidity of the uplift in health in many of the cases. The drinkers, whom I had seen on arrival crawling painfully up the incline leading to the Buvette, coughing, spitting, puffing, and groaning, in ten days' time began to mount with elastic step and with little apparent fatigue and distress, evidently looking forward with confidence to their *quart* or *demi-verre* of the tepid specific. The dose of the Source Vieille is small—fifty grammes (or a quarter of a glass, equal to an ounce and two-thirds) at the start, twice a day, an hour before meals, and this is slowly increased to 200 grammes three times a day. The maximum of 600 grammes, or 20 oz., daily is rarely reached and never exceeded. Each drinker purchases the privilege of quaffing *ad libitum* for twenty francs, payable to the *fermier* of the Sources, whose £6000 annual rent is easily recouped. Gargling, inhalation of the pulverised spray, and a certain amount of bathing likewise go on, but the *traitement sérieux* consists in the internal exhibition of the water.

For the benefit of the visitors (drinkers and abstainers) a fairly good band plays twice a day in the Jardin Darralde, the small Eden spoken of in the centre of the village. At night this Pyrenean Vauxhall is illumined *a giorno*, not by aid of gas or petroleum, but by some scores of electric lamps, the effect of which, as toned down by the foliage, is remarkably pleasant. The services of a neighbouring cascade with a fall of thirty metres have been requisitioned, and force equal to 150 horse-power, acting through a turbine on a Gramm-motor generates electricity enough to furnish 600 jets to the little town.

Eaux Bonnes is easily reached by rail through Paris and Pau to Laruns, but in fine weather better and more economically by the General Steam Navigation Company's boat from Irongate Wharf on the Thames direct to Bordeaux, and thence on by rail in seven hours to Laruns, the terminus of the branch line from Pau. A good road winds up the picturesque ascent and lands the traveller in three-quarters of an hour at one of the best of Pyrenean hostelries.

REPORT ON SANITARY MEASURES IN INDIA IN 1887-8.

TOGETHER WITH MISCELLANEOUS INFORMATION TO JUNE, 1889. VOL. XXI.

As the greater portion of this report consists of a summary of the information given in the reports of the Sanitary Commissioner with the Government of India and of the health officer of Calcutta, which we have already noticed at considerable length (*vide* THE LANCET, Jan. 12th, June 22nd, 29th, and July 6th), it seems unnecessary again to go over the same ground. There is, however, in the appendix a minute by Colonel Henry Yule, C.B., member of the Council of India, on the subject of sanitation in that country which is well deserving of notice. In it he has taken a review of the present position of sanitary administration in India, and has endeavoured "to form some estimate of the degree in which that administration can be regarded as adequately discharging the duties of our Government in cherishing the health of the troops, in protecting the population from the ravages of epidemic disease, and in raising the standard of public health, as well as to consider what steps are practicable in order that those duties may be more effectually performed."

In 1864, in accordance with the recommendation of the Royal Commission appointed in 1859, to inquire into the subject of barracks and hospitals, the Government of India appointed sanitary commissions in the three Presidency towns, consisting of a civil officer as president, a medical officer as secretary, and a second medical officer and two military officers, one of them an engineer, as additional members. Their duties were "to give advice and assistance on all matters relating to the public health, such as selection of new stations and the sanitary improvement of existing stations and bazaars; to examine new plans for barracks and hospitals; to advise on the laying out of stations and bazaars, the sanitary improvement of native towns, the prevention and mitigation of epidemic diseases, and generally to exercise a constant oversight on the sanitary condition of the population, European and native; to report on the prevalence, causes, and means of preventing sickness and disease." In cases where the construction of remedial works was necessary their functions were to be consultative only, but in other cases they were also to be administrative. In less than two years, however, the Government of India abolished this commission, substituting for it a single officer as sanitary commissioner, with a medical officer as secretary. Colonel Yule states that when this change was carried out the Government "nominated to the position of sanitary commissoner an officer who, it is believed, had given no previous attention to sanitary questions!"

The Royal Commission above referred to stated the average mortality of the European soldiers in India prior to 1859 to have been 69 per 1000, and recorded their opinion that it "could be reduced to 20 per 1000; whilst a hope might be cherished that if the time should ever arrive when India should be freed from the general prevalence of malaria due to local causes, the mortality would come down to one-half of the rate just named." Colonel Yule states that the first of these anticipations has been more than realised, the death-rate in the last four years having been under 15 per 1000. He does not say directly that this has been the result of the measures adopted on the recommendation of the sanitary commissioners, but he has failed to point out that a considerable amount of the reduction may have been due to the altered conditions of service consequent upon the old local European force having been replaced by the regular army. We do not in the slightest degree undervalue the good work in sanitation which has been going on steadily in India during the last thirty years, but we feel it our duty to point out this other very important agency which has at the same time been in operation. But while there has been this remarkable reduction in the mortality, there has been no corresponding decrease in the admissions into hospital and the proportion constantly non-effective from sickness, the former amounting to 150 per cent. annually, and the latter averaging 71 per 1000 of the strength. Colonel Yule attributes this in a great measure to "the increased proportion of young soldiers, due to recent changes in the conditions of service. Such ratios render it imperative on those who are responsible for the health of the army to spare no effort, whether in discovering the causes of so great an amount of illness, or in removing or mitigating these causes when ascertained." He calls special attention to the increase in the death-rate from enteric fever and in the prevalence, in some districts of India, of intermittent fever as deserving of careful investigation. He also notices the diet of the soldier as an important element. It appears that in 1883-5, on a strong representation from the Army Sanitary Committee, it was made a subject of special investigation; but this does not seem to have been followed by any practical improvement. Indeed, in connexion with this question Colonel Yule gives an instance of how things are *not* done. In an extract from a resolution of the Government of Bombay "it is mentioned that the sanction of the Government of India had then been obtained to the 'issue of a free ration of cocoa to men quartered in the Ghorpuri barracks before going on parade in early morning or on sentry after midnight, as an experiment.' I have not found any record of the result of the experiment, which, *primâ facie*, strongly commends itself for adoption. In the return of reports on the subject of diet and daily meals from upwards of one hundred officers, which accompanied the India Government's letter of Aug. 7th, 1885, above quoted, I can find no one instance of cocoa being supplied." Some recommendations were at the same time made on the subject of clothing, on which Colonel Yule observes: "It would be well to know if a recommendation so obviously calling for attention has been followed up and become a rule general in India." We would venture to suggest this question as deserving of the attention of the Council of India, of which Colonel Yule is a member. He also points out the necessity for improving

the drainage and general sanitation of the country surrounding military stations in unhealthy localities, and the importance of locating a larger number of troops at the hill stations. To this latter subject considerable attention has been already paid, nearly one-third of the European force being thus quartered, with manifest advantage to the health, vigour, and efficiency of the troops. Colonel Yule brings specially to notice the great importance and necessity for some measures to reduce the amount of inefficiency from venereal disease. "The immense proportions of the evil must greatly affect the efficiency of the troops, whilst its nature is degrading to their character. No duty can be more incumbent—whilst, I fear, none is more difficult—than that of abating this mischief." After some remarks on the high death-rates in some of the Indian gaols, and on the mortality in the civil population arising from mitigable or preventable disease, he summarises the insanitary conditions under three heads: (1) Impure water-supply; (2) imperfect removal of filth and polluted surface; (3) a subsoil either polluted by the continual infiltration of surface impurities or saturated with moisture and unrelieved by drainage. In view of these evils the Government of India has expressed the opinion "that the time has now come for the prosecution of sanitary measures on a more systematic plan than has hitherto been adopted as a rule." This seems to involve increased expenditure on water-supply and drainage works; and with a view to efficiency in these respects, the provision (1) of the advice and aid of experts, and (2) greater facility in raising the necessary funds. Into the details of these, however, we cannot enter. Colonel Yule observes, "We have had reports, statistics, and suggestions for a quarter of a century, but taking a broad view of amelioration in the health of the country, the advance cannot be said to have been other than small. It is absolutely necessary that a new and large step forward should be made." Colonel Yule, in concluding his valuable minute, bears very gratifying testimony to the work done by Dr. John Sutherland during the many years he was a member of the Army Sanitary Committee, and from which he has recently retired. "The amount of Dr. Sutherland's work in this kind has been immense. But in quality and value it has been as great as in amount." He points out the great importance of a successor to him being appointed. There seems to be some difficulty raised by the India Office with regard to the payment of a member. "But it will be in reality maintaining an old appointment which has been of the highest value to the British army and to the State in India, and the cessation of which would be a deplorable misfortune." We trust that this strong protest may avail, and that we shall not have to suffer from a wretched system of saving a paltry sum of money at the expense of efficiency.

PRACTICAL OBSERVATIONS WITH REGARD TO THE PASTEUR TREATMENT.

A CORRESPONDENT, Mr. Harry Watts, of the London Hospital, forwards us the following interesting particulars concerning the method pursued at the Pasteur Institute:—

I have recently returned from Paris, having gone thither to take charge of patients who had been bitten by a rabid dog at Henley-on-Thames. During my daily attendances at the Pasteur Institute I have had many opportunities (through the kindness of M. Pasteur and his staff) of seeing the entire working of the Institution, and also of noting the treatment of some 200 patients who were at that time under care. Amongst this number were about a dozen English patients who were under my close and constant observation. Pasteurism does not appear to be even yet thoroughly understood by a large proportion of English practitioners, consequently patients are frequently sent over there to submit to the treatment without the slightest necessity, and so have to return to England uninoculated, and more or less dissatisfied with their medical attendant, who has thus unintentionally sent them on an unsatisfactory errand. For instance, one patient was sent over some three weeks after he had been bitten, who stated that the dog was still living at the time he left England; now it should be generally known that a rabid dog cannot exist for more than four, or at the most five, days after the biting stage of the disease has been reached. This M. Pasteur has conclusively proved; also that it jeopardises the successful issue of the treatment to a vast extent to allow so long a period as three weeks to elapse before this preventive treatment is adopted. Another rule which should be borne in mind is that when possible the head and neck of the rabid animal should be sent to the institute with the patient, for although on post-mortem examination the contents of the animal's stomach may be accepted as generally pathognomonic of rabies, yet M. Pasteur prefers the more scientific proof, which he obtains by inoculating a healthy dog with the virus taken from the medulla of the dead animal and producing the usual sequence of hydrophobic symptoms. In those cases where the head is not obtainable, the patient should then take with him the certificate of the veterinary surgeon who performed the post-mortem examination on the rabid animal, to the effect that it died from or was suffering from rabies. All the inoculations are performed in the flank, the regions just above the iliac crests on both sides of the body; female patients would therefore save themselves annoyance and the operator much time by making a vertical slit about six inches in length in their dress and underclothing, coinciding with the regions above named. It has been stated in the daily press that Pasteur's treatment is painless; this, however, is not quite correct. True it is that some patients are affected by it more than others, and children appear to feel it the least of any; their objections seem chiefly directed to the passage of the hypodermic needle. I have seen strong, well-developed, muscular men doubled up with the pain caused not by the needle only, but by the inoculated virus itself, and which the patients, almost unanimously, described as feeling "like corkscrews going down your legs." It is curious how similarly, though varied in degree, the different patients are affected, some feeling it more at one time than at another. I was much struck by this on one occasion when the virus was used at its strongest—viz., only two days old, and at the termination of the treatment. It then affected a labouring man in my charge more than at any previous time, whilst another of my patients, a somewhat neurotic lady, stated that at no previous inoculation had she experienced so little discomfort and pain; the same amount of virus appeared to be injected and it was of the same strength in both cases, and at exactly the same stage of the treatment.

Whilst observing the cases under treatment, one could not fail to notice that the same train of symptoms follows more or less markedly in every patient, man, woman, or child. Briefly they consisted of: 1. An initial stage of fever followed by varying degrees of prostration, and lasting from two to five days. 2. Some amount of formication, which is generally limited to the lower extremities; together with this is a feeling of intense weight in the legs, accompanied nevertheless with a desire to walk, and in the gratification of which the patient's best efforts fail to satisfy. 3. About the eighth day there is a pause, and, except for the tenderness in the sides at the inoculating area, there is but little to complain of, the former symptoms having for the most part subsided. 4. By the tenth or twelfth day, however, fresh symptoms arise, the chief among which is a sense as of constriction about the chest and throat, which is invariably complained of; some patients say they feel as if they had a sore throat and stiff neck, yet swallowing food or moving the head was unaccompanied by pain. On examining these regions there is nothing abnormal to be detected. These symptoms, as a rule, do not last more than a few days, though I have noticed exceptions.

The injected virus evidently sets up some amount of irritation in the system, though scarcely any at the site of the inoculation, which tends to produce a temporary hysterical condition. This was especially well marked in one of my cases, and most favourable results were obtained by treating her with carbonate of ammonia in doses of four or five grains thrice daily, as suggested by Dr. Silvester. The only cases which are refused treatment at the Pasteur Institute are those where the patient has been bitten by a non-rabid animal. As I have stated, such cases do get sent over to Paris; such persons are soon assured that they have nothing whatever to fear, and are free to return to England as soon as they like. The treatment being entirely prophylactic, there are no in-patients; neither is there any provision or room for such, the whole

building being occupied by splendid laboratories, cultivating rooms, &c.

In conclusion, it may be mentioned that wounds of the face are usually regarded as the most serious, and persons suffering from them are placed under treatment for a minimum period of twenty-one days, while trivial wounds of the upper and lower extremities are seldom detained for more than fifteen days.

THE SANITARY CONGRESS.

THE eleventh Congress of the Sanitary Institute was opened at Worcester on Tuesday, Sept. 24th, the attendance being somewhat small owing to the inclemency of the weather. After luncheon at the Guildhall, the members adjourned to the Skating Rink, where prizes and certificates were awarded for excellence in medical preparations, water filters, and other articles connected with sanitation.

In the evening Mr. G. W. Hastings, M.P. (President of the Congress), delivered an address at the Guildhall, and called attention to the intimate connexion existing between the public health and the sanitary condition of our houses and habitations. He urged the necessity of having proper appliances for the disposal of sewage, and expressed himself strongly in favour of placing the liquid sewage directly on the land. He then praised the excellent work done by the Plumbers' Company in London by training and registering skilled workmen. He next drew attention to the number of trades and occupations in this country which tended to produce disease and shorten life, and he insisted that it was the duty of the community as well as of employers to endeavour to remove the causes of unhealthiness in our industries. The general principles of sanitation would improve our drainage and remove other general causes of disease; but this would be to a great extent nugatory if industrial occupations were allowed to remain unhealthy. He also expressed his satisfaction at the enactment in the last session of Parliament of a measure for the notification of infectious diseases. It would have an immense effect in diminishing the spread of zymotic disease by enabling medical officers of health to hear of the first outbreak, and to take prompt measures for its suppression. No doubt some portion of the medical profession had raised objections to the measures; but the example of Edinburgh, a city in which the profession were remarkably influential and distinguished, showed that no real injury was done to them by notification. The system there, after years of trial, had been thoroughly approved by the profession. It was to be hoped that the sanitary authorities, both in town and country, would see the expediency of adopting, by every means which the Act provided, this easy and efficacious preventive against the spread of disease.

The Congress met again on the following day, and commenced the sectional sittings.

In Section I., "Sanitary Science and Preventive Medicine," Dr. G. Wilson, M.A., M.D., F.R.S.E., delivered an address on "The Policy of Prevention in some of its Social and Sanitary Aspects." He first glanced at the long roll of diseased conditions and premature deaths which depended on the laws of heredity—hereditary consumption, scrofula, gout, syphilis, cancer, hereditary insanity and nervous ailments, hereditary criminality, hereditary intemperance, hereditary vagrancy. Let them consider for a moment the multitudes of maimed and doomed offspring resulting from unsuitable or imprudent marriages, apart from cases of diseased or unhealthy parentage. Unthriftiness in marriage led too often to intentional neglect of the children, amounting to culpable homicide. It largely accounted for false thrift, under the name of infant life assurance, spreading its baneful influence even into innocent village communities. But public feeling was gradually being aroused to this enormity, and there were at last hopes of effective legislative interference. He doubted whether public opinion was sufficiently advanced to enforce a certificate of health on the part of persons about to marry; but he thought the time was at hand when some check should be put on the appalling waste of infant life which disgraced our civilisation by prohibiting marriages unless the man could produce reasonable proof that he was in a position to maintain a wife. As regarded all classes, it might be said that too early marriages, like marriages which took place too late in life, if not infertile, resulted in the birth of children afflicted with a lowered vitality. Physicians who had carefully studied the subject maintained that no woman should marry before twenty-one, and as regarded the other sex it might generally be said that the responsibilities of married life would be all the more safely faced if marriage were delayed until the age of twenty-five. But a vast amount of sickness might be averted, and a number of lives might be prolonged to mature age, if ordinary medical practice were based as much on preventive as on curative lines. The principal causes of disease were errors in diet, abuse of the luxuries of life, worry and overwork, idleness, want of self-control, irregular modes of life, errors in clothing, and, above all, intemperance. It was these causes that kept the ordinary practitioner busy, and which crowded the consulting rooms of the fashionable physician. It was true that diseases arising from impurities in air and water, unwholesome or insufficient food, and zymotic contagion still contributed largely to ordinary medical practice; but year by year they were becoming less prevalent. There was no disguising the fact that so long as the family medical practitioner continued to be paid to attend only on people when they were ill, and not to conserve the health of the household, there would be a constant drag upon public health progress. Curative and preventive medicine might go hand in hand for the promotion of public health and the abatement of human suffering. All that was required to effect the change was that the ordinary medical attendant should be paid by an annual stipend or retaining fee,—a system largely followed in India and other places abroad, and to some extent even in this country. Medical men were paid so much a year to attend members of friendly societies, &c., but unfortunately the majority of these appointments were scandalously underpaid, because they were regarded by medical men as stepping-stones to general practice. He next glanced at the studies of Pasteur, Koch, and Klein as developing the "germ theory of disease," and expressed his belief that the statistical results of M. Pasteur's treatment of hydrophobia powerfully supported his theory. Coming to the subject of the dangers attaching to our milk supplies, he said that in numerous outbreaks of scarlatina milk had been the medium by which the contagium of the disease had been distributed, and in many outbreaks of typhoid fever the disease had been propagated by washing out the milk cans or diluting the milk with sewage-polluted water. Now the State had enforced the provisions of the Cowsheds and Dairies Order, though it had been practically ignored in most parts of the country.

The President (Mr. Hastings, M.P.,) offered some remarks on the question of the milk supply. In India milk was always boiled before use, consequently India did not know what scarlet fever was. A discussion followed and the Congress adjourned.

THE INFECTIOUS DISEASE (NOTIFICATION) ACT AND THE PROVINCES.

THE Local Government Board have issued a circular to the urban, rural, and port sanitary authorities in England and Wales explaining the provisions of the Infectious Disease (Notification) Act, 1889, as published in our issue of last week. The present circular contains the following additional remarks as specially applicable to sanitary authorities outside the metropolis:—

It will be observed that, except as regards the metropolis, the Act will only extend to urban, rural, and port sanitary districts in which it is adopted by the sanitary authorities and the local authorities under the Act. The expression "port sanitary district" is defined by the Act as meaning the port sanitary district of London, and any port or part of a port for which a port sanitary authority has been constituted under the Public Health Acts.

The Act can only be adopted by a resolution passed at a meeting of the sanitary authority. Fourteen clear days at least before such meeting, special notice of the meeting and of the intention to propose the resolution must be given to every member of the authority. The notice will be deemed to have been duly given if it is either (*a*) given in the mode in which notices to attend meetings of the sanitary authority are usually given, or (*b*) where there is no such mode, then signed by the clerk of the sanitary authority and delivered to the member, or left at his usual or last-known place of abode in England, or forwarded by post in a prepaid letter addressed to the member at his usual or last-known place of abode in England.

When a resolution has been passed adopting the Act it must be published by advertisement in a local newspaper and by hand-bills, and

otherwise in such manner as the sanitary authority think sufficient for giving notice thereof to all persons interested.

The resolution will come into operation at such time, not less than one month after the first publication of the advertisement thereof, as the sanitary authority may fix; and upon its coming into operation the Act will extend to the district. A copy of the resolution must be sent to the Board when it is published.

The circular concludes as follows:—

The Board suggest that the sanitary authority should take into their early consideration whether, with a view to obtaining additional means of checking the spread of infectious disease in their district, it is not desirable that they should avail themselves of the power which has been conferred upon them of adopting the provisions of the Act.

HUGH OWEN, Secretary.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Kensington.—The parish of St. Mary Abbotts, Kensington, had a death-rate of 15·9 per 1000 living during 1888, and the concurrence of this low general rate with a correspondingly low zymotic death-rate is naturally regarded by Dr. Dudfield as a matter for congratulation. Measles was somewhat exceptionally fatal in Kensington, as indeed in London generally; and this leads Dr. Dudfield to discuss the question of isolation in hospital for this disease. As is well known, the Metropolitan Asylums Board have decided that they have no duty to receive measles cases, and having regard to the natural history of the disease and to the peculiarities of its onset and period of incubation, we incline to agree with Dr. Dudfield that there would be no public advantage in any general system for the removal to hospital of cases of measles. A number of other questions affecting metropolitan public health as a whole, rather than the special needs of Kensington parish, are discussed at considerable length in the report; but there is also much having local interest as to the work carried out by the officers of the vestry in the various departments coming within the supervision of the health officer, and we cannot but feel that this work is carried on in a manner that is worthy of imitation by some other metropolitan health authorities, and especially by such as distribute the sanitary considerations relating to their districts amongst multiple officers, all of whom are expected to advise on the same subject.

Ulverston Urban District.—The report on this district deals mainly with certain occurrences of disease, and a statement as to the principal sanitary circumstances of the district, together with an account of the matters as to which periodical inspections are made, no point of especial interest having arisen during the year. Dr. A. Thompson gives the death-rate from all causes as 18·1 per 1000, the zymotic rate being a low one, namely, 0·8 per 1000.

Ulverston Rural District.—In this rural area, also in Dr. A. Thompson's district, the general death-rate was 14·0 per 1000, and the zymotic rate 1 35. Amongst the deaths making up the latter group were 5 from diphtheria, together with the very suspicious entry of 10 deaths from so-called croup, which was certainly in large part diphtheria, although not of a very definite type. Fortunately the use of the term croup did not hinder inquiry with a view to the adoption of the needed means of prevention, and in one case, where sore throats had preceded genuine diphtheria, it was found that milk was the source of the infection. The disease seems to have started at High Wray, where the sanitary circumstances have been much neglected. These, it is to be hoped, will be forthwith remedied.

Ventnor Urban District.—Dr. Russell Woodford states that during 1888 the general death-rate of Ventnor was 12·8 per 1000 living, and that, if the deaths of visitors who came into the district with advanced disease be deducted, a resident rate of only 5·7 per 1000 remains. With such a rate there is obviously not much to record in the way of preventable disease, and the report is mainly made up of an account of the current sanitary work maintained. The water-supply of the town seems to be excellent; the sewerage is not referred to.

Derby Urban District.—According to Mr. Iliffe, the death-rate of Derby during 1888 was the lowest on record—namely, 16·3 per 1000 living on a population now exceeding 90,000. A full account is given of the infectious diseases which prevailed, beginning with a story of the introduction of small-pox from Sheffield. Scarlet fever was also widely prevalent. In all, 756 cases were reported, and of these 447 took place during the fourth quarter of the year, and all attempts to secure adequate means of hospital isolation broke down; indeed, only 20 per cent. of the total were so isolated. But Mr. Iliffe claims for notification some distinct power to reduce scarlet fever. Thus, judging from mortality, it would appear that during the nine years in which compulsory notification has been in operation, and including the whole of last year's epidemic, there was a total of 206 scarlet fever deaths; whereas in the preceding nine years the corresponding number was 562; and this although during the earlier of the two periods the population was distinctly less—indeed, at its close in 1881 it was nearly 9000 less than now. In all, 998 cases of infectious diseases came to notice during the past year under the compulsory notification clauses, and an account is given of the various steps taken in connexion with these to stay the spread of infection. Mr. Iliffe adds, regarding its working, that "it is scarcely possible for any law to be more loyally obeyed by all sections of the inhabitants." A new infectious hospital has for many years past been a great want in Derby, and we are glad to find that the construction of a very excellent building, of which plans are included in the report, is now rapidly approaching completion.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5284 births and 3117 deaths were registered during the week ending Sept. 21st. The annual rate of mortality in these towns, which had been 16·2 and 16·9 per 1000 in the preceding two weeks, further rose last week to 17·0. During the first twelve weeks of the current quarter the death-rate in these towns averaged 18·6 per 1000, and was 1·7 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 12·4 in Brighton, 12·7 in Derby, 12·8 in Leicester, and 14·2 in Halifax. The rates in the other towns ranged upwards to 22·7 in Plymouth, 25·3 in Sunderland, 26 9 in Newcastle-upon-Tyne, and 27·5 in Preston. The deaths referred to the principal zymotic diseases, which had been 512 and 529 in the preceding two weeks, further last week to 537; they included 279 from diarrhœa, 68 from diphtheria, 58 from scarlet fever, 57 from whooping-cough, 45 from "fever" (principally enteric), 29 from measles, and only 1 from small-pox. These zymotic diseases caused the lowest death-rates last week in Birkenhead, Birmingham, and Leicester, and the highest rates in Norwich, Plymouth, and Preston. The greatest mortality from diarrhœa occurred in Hull, Huddersfield, Salford, Newcastle-upon-Tyne, and Norwich; from scarlet fever in Blackburn and Plymouth; from whooping-cough in Bolton and Sunderland; and from "fever" in Norwich and Preston. The deaths from diphtheria included 44 in London, 5 in Salford, 4 in Manchester, 3 in Sheffield, 3 in Preston, 3 in Derby, and 2 in Birmingham. Small-pox caused one death in Sheffield, but not one in any of the twenty-seven other great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1171, against numbers increasing in the preceding twelve weeks from 559 to 1111; 128 cases were admitted to these hospitals during the week, against numbers increasing the previous four weeks from 98 to 196. The deaths referred to diseases of the respiratory organs in London, which had been 142 and 152 in the preceding two weeks, declined again last week to 142, and were 53 below the corrected average. The causes of 64, or 2 2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Birmingham, Sunderland, Oldham, Bradford, and in three other smaller towns; the largest proportion of uncertified deaths was registered in Liverpool, Salford, Huddersfield, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 16·5 and 19·1 per 1000 in the preceding two weeks, declined again to 16·4 in the week ending Sept. 21st; this rate was 0·6 below the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 9·5 and 12·3 in Perth and Leith to 17·9 in Edinburgh and 22·4 in Paisley. The 419 deaths in the eight towns showed a decline of 69 from the number in the previous week, and included 36 which were referred to diarrhœa, 15 to whooping-cough, 6 to "fever" (typhus, enteric, or ill-defined), 6 to scarlet fever, 6 to diphtheria, 5 to measles, and not one to small-pox; in all, 74 deaths resulted from these principal zymotic diseases, against 66 and 79 in the preceding two weeks. These 74 deaths were equal to an annual rate of 2·9 per 1000, which corresponded with the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 24 and 38 in the preceding two weeks, were last week 36, of which 10 occurred in Edinburgh, 8 in Dundee, 7 in Glasgow, 3 in Greenock, and 3 in Paisley. The 15 deaths from whooping-cough exceeded the number in the previous week by 2, and included 9 in Glasgow and 5 in Edinburgh. The 6 deaths from "fever," of which 3 occurred in Glasgow, showed, however, a decline of 5. Four of the 6 fatal cases of diphtheria and 2 of the 6 deaths from scarlet fever also occurred in Glasgow. The 5 deaths from measles, including 3 in Glasgow, were fewer by 4 than the number in the previous week. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 54 and 61 in the preceding two weeks, further rose last week to 66, but were 19 below the number returned in the corresponding week of last year. The causes of 49, or nearly 11 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·6 and 24·5 per 1000 in the preceding two weeks, further rose to 28·5 in the week ending Sept. 21st. During the first twelve weeks of the current quarter the death-rate in the city averaged 23·3 per 1000, the mean rate during the same period being 16·5 in London and 15·8 in Edinburgh. The 193 deaths in Dublin showed a further increase of 27 upon the numbers returned in the previous two weeks; they included 18 which were referred to diarrhœa, 8 to "fever" (typhus, enteric, or ill defined), 3 to whooping-cough, 1 to scarlet fever, and 1 to diphtheria. Thus the deaths from these principal zymotic diseases, which had been 33, 15, and 20 in the preceding three weeks, rose again last week to 31; they were equal to an annual rate of 4·6 per 1000, the rate from the same diseases being 2·2 in London and 3·7 in Edinburgh. The deaths referred to diarrhœa, which had been 26, 11, and 15 in the preceding three weeks, rose again last week to 18; and the deaths from "fever" showed a further increase upon recent weekly numbers. The deaths, both of infants and of elderly persons, exceeded the numbers returned in recent weeks. Twelve inquest cases and 9 deaths from violence were registered; and 52, or more than a quarter, of the deaths occurred in public institutions. The causes of 30, or more than 15 per cent., of the deaths in the city were not certified.

VITAL STATISTICS OF FRENCH TOWNS.

The French official statistics, issued annually by the Ministère du Commerce under the title of "Statistique Générale de la France," the volume relating to 1885 having just been issued, deal in considerable detail with the statistics of marriages, births, and deaths, but give no information concerning the causes of death in France, which is essential to supply explanation of the excess of mortality in that country compared with that which prevails in England and Wales. It is satisfactory, therefore, to find that much valuable information bearing on this branch of mortality statistics is now furnished by the Bureau de l'Hygiène Publique at the Ministère du Commerce et de l'Industrie in monthly and annual returns relating to those French towns which had at the date of the last census in 1886 a population exceeding 10,000 persons. In the first place, it is interesting to know that France contains 229 of such towns, which had in 1886 an aggregate population of rather more than nine millions of persons. When we bear in mind that in England and Wales we have a still larger aggregate population living in the twenty-eight large towns dealt with in the Registrar-General's weekly return, each of which had at the time of the last census in 1881 a population exceeding 70,000 persons, it becomes easy to realise how far smaller a proportion of the French population lives in large towns than is the case in this country. If we adopt the same limit for France, we find that in 1881 there were only 16 towns with a population exceeding 70,000, the aggregate population of which does not exceed four millions and a half, and considerably less than half the English population living in towns of the same size. The returns to which we refer deal, however, with all the 229 towns having a population exceeding ten thousand, and, as above stated, an aggregate population of rather more than nine millions. In comparing, therefore, the mortality of these 229 French towns, the majority of them being small towns, with that of the twenty-eight largest English towns, it must be remembered that such comparison should be favourable to the French towns, as, all other conditions being fairly equal, the death-rates of large towns almost invariably exceed those of small towns. The first annual return for these French towns has only just been issued, and relates to the year 1887. It should be stated that, although the return gives very valuable abstracts of facts, no calculated rates are given, and that any useful consideration of the facts necessitates the calculation of rates to population. This defect militates inevitably against the value of the return as a means of influencing public opinion in France in the direction of health-progress and sanitary reform. The marriage-rate in these 229 French towns in 1887 was equal to 15·4 persons married per 1000 of the population, which was fully equal to the mean rate in English towns in that year. The marriage-rate was 16·8 in the 11 largest French towns, and was somewhat lower in the smaller towns. Notwithstanding this fact of a marriage-rate fully equal to that which prevails in the English towns, the mean birth-rate in the 229 towns was only 25·1 per 1000, whereas in the twenty-eight English towns it was 31·2. The range of birth-rates in the French towns was not very wide, but it may be noted that the rate in the eleven largest towns was 26·1 per 1000, while, speaking generally, the birth-rate declined with the size of the town. Owing mainly, of course, to the low birth-rate, but also partly owing to the high death-rate, it is a fact that the deaths in these 229 towns in 1887 exceeded the births, whereas in the twenty-eight English towns the births exceeded the deaths by no fewer than 112,590, equal to an increase of 12 per 1000 of the estimated population. The death-rate in 1887 in the 229 French towns was equal to 25·3 per 1000 of the population, and exceeded by 0·2 the birth-rate in the same towns; in the twenty-eight largest English towns the mean rate in 1887 did not exceed 20·8 per 1000. Speaking generally, the death-rate among the French towns is no higher in the great than it is in the smaller towns. For instance, in the eleven largest towns, including, of course, Paris, the mean rate in 1887 was 25·3 per 1000, corresponding with the rate in the aggregate of the 229 towns. The only group of towns showing a marked excess included thirty-eight towns having populations ranging between 15,000 and 11,000; the mean rate in this group, with an aggregate population of 109,156, was 34·3 per 1000, the excess being in great measure due to the high rates in the following towns—Morlaix 41·5, Gentilly 55·7, and La Seyne 41·5 per 1000. These exceptionally high rates in such small towns may be susceptible of an explanation not readily suggested by the official tables. In Morlaix no less than 218 of the 609 deaths are returned as from unknown causes; 412 of the 775 deaths in Gentilly were of persons aged upwards of sixty years; and in La Seyne the 547 deaths included 238 of adults aged between twenty and forty years. Among the four largest towns it should be noted that the rate was 23·4 in Paris, 22·2 in Lyons, 29·2 in Marseilles, and 25·1 in Bordeaux; and that among the highest rates (again among the smaller towns) were 33·0 in St. Ouen, 38·4 in Ivry, and 38·7 in Bastia. Without at present going further into detail concerning the excess of mortality in French towns, the fact that the mean mortality during 1887 in the 229 towns dealt with in the official return we have had under review was equal to 25·3 per 1000, against 20·8 in the largest and most densely populated of the English towns, stands out conspicuously. In other words, disregarding the

difference in the size of the towns, which makes the comparison really unfair to England, the mortality in the French towns exceeded that in the English towns by more than a fifth, or 21·6 per cent. We note with satisfaction that the return now issued affords the means of analysing this excess of mortality in the French towns, and we propose on another occasion to deal with the age-distribution of this excess, and the diseases to which it is mainly due. At the same time, it may be hoped that, with a view to the education of public opinion on health matters in France, the French Government will ere long see the necessity of publishing rates of mortality as well as the bare facts, which have no value except for those who have the time and inclination to calculate rates for themselves.

THE SERVICES.

ARMY MEDICAL STAFF. — Brigade Surgeon William Folliott, F.R.C.S. Ireland, is granted retired pay (dated Sept. 25th, 1889).

VOLUNTEER CORPS.—*Artillery:* 1st Cheshire and Carnarvonshire: The undermentioned Acting Surgeons to be Surgeons:—W. Haining, M.D. (dated Sept. 21st, 1889); E. J. Lloyd, M.D. (dated Sept. 21st, 1889). — *Rifle:* 1st Volunteer Battalion, the Prince of Wales's Own (West Yorkshire Regiment): Acting Surgeon A. O. Wiley to be Surgeon (dated Sept. 21st, 1889).—1st Volunteer Battalion, the Leicestershire Regiment: Acting Surgeon R. B. Smith to be Surgeon (dated Sept. 21st, 1889).—2nd Volunteer Battalion, the Royal Scots Fusiliers: William John Lawrie, M.D., to be Acting Surgeon (dated Sept. 21st, 1889).—1st Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Surgeon A. Young resigns his commission (dated Sept. 21st, 1889).

Correspondence.

"Audi alteram partem."

THE DIFFICULTIES OF THE MEDICAL PROFESSION.

To the Editors of THE LANCET.

SIRS,—If we admit, as many do, that the present times are not prosperous for the profession generally, there must be causes at work to produce such a result. Let us inquire and see if we can arrive at any of them. The general spread of education is one cause. At first sight it would seem to be natural that this would rather enhance the value of so useful a being as the family doctor. But in practice it is not so. The people are now fairly well instructed in physiology. They understand increased temperature; they know more, or imagine that they know more, of the A B C of medical matters than some doctors did forty years ago. Well, they or their children are in a febrile condition. It may be nothing, or a great deal; they assume at first it is nothing. So they go to Mr. Bolus, the nearest chemist, for a bottle of his effervescent saline mixture. They physic themselves and their children. If nothing is really the matter, the febrile temperature cools down and the patient is presently well. Or they do not even go to the chemist. Messrs. Tape and Thread, the drapers, sell a bottle of citrate of magnesia, granulated, at 6½*d.* This is better still. Then some of the family are below par. What is to be done? Why, send to one of the "Stores" or to the draper's and purchase Parrish's Chemical Food at one shilling a pound, cod-liver oil also, and so on. We might multiply this list a hundredfold. Thanks to newspapers and advertising, the superficial mysteries of the medical art are revealed. Sometimes disastrous results arise. They are discovered too late for remedy. A strangulated hernia has been dosed with aperients and castor oil till the damaged intestine has mortified. Or a case of diphtheria is only discovered when the patient is beyond hope and others of the family are infected; or a rheumatic fever, when the heart is damaged beyond repair; or enteric fever, undiscovered till perforation of bowel and death announce it; and so on. Every practitioner knows the evils of amateur doctoring. In this enlightened but feverish age every man strives to be his own doctor, lawyer, and theologian. The results are often very sad, but in the hurry of our present hectic existence unfortunately only too soon forgotten. This is, moreover, the age of quacks. True, Medical Acts of Parliament have been passed, but never was quackery more rampant than now. Not so much as formerly, it may be, in quacks themselves, but in the form of patent remedies and specifics for every disease.

In these advertising days, in medicine, as in everything else, people who know little or nothing of a subject, who presume ignorantly to address the public in the daily and weekly press, attract more notice than those who have devoted their lives to their particular work. It is a misfortune that in this country a very large amount of medical practice (and that the most easy and profitable) is lost to the profession by the fact that almost all chemists prescribe largely. This a great and crying evil. The practice is, instead of diminishing, largely increasing. This should be stopped. The chemist nearly always prescribes, but generally says, to cover himself, "If worse, take patient to a medical man." And so the medical man reaps all the hard work (often without being paid) and the chemist most of the profits. Then, again, hospitals, both special and general, take away largely from the proper, legal, and rightful profits of the profession. The public have a notion that they get advice and medicine of the highest character from the hospitals for nothing, but if they pay for it to the general practitioner they get a second-rate article. This is a bad system. Why not set up legal dispensaries for free legal advice, free places to get married in, free clothing establishments, free meat stores, &c., all paid for by subscriptions or rates? The fact is, the medical profession is gradually and surely committing suicide, and its career on the downward path should be promptly arrested. If we were true to ourselves (which we are not and never have been) the present increase in the profession would be insufficient to supply the needs of the public. But, if we go on working on the "sweating system" (for who sweats more, mentally and physically, than the hard-worked medical practitioner, night and day doing his best to preserve the health and life of the people?), often indeed without reward, then we shall be fools indeed. This idea, that medical services can be had for nothing, and so ought to be paid for at that price, is spreading. We are doing away with all professional reserve. We make everything plain, and it is valued accordingly. The more a profession is lowered in the eyes of the public the less respect it receives.—I am, Sirs, yours faithfully,

Sept. 1889. AN OLD DOCTOR.

NOTIFICATION OF INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—I think Professor Corfield must have been the subject of hyperæsthesia when he took personal offence at what I said in *The Times* regarding his previous letter. My remarks were directed against his letter, and not against himself, and I was particular in saying that many others had indited similar epistles, so that he had no need whatever to imagine that I singled him out for special condemnation. He says, however, that in classifying his letter with those of other medical officers of health with which Mr. Ritchie has been abundantly supplied, and still more in commending it as a good specimen of that class, I was guilty of bad taste, "to put it mildly." This addendum shows that the enormity of my guilt is wellnigh unspeakable, and I fear we must let it rest there. Professor Corfield allows that a reduction of 50 in the number of deaths in a town means the saving of 50 lives, whatever the previous number of deaths may have been. But his illustration of its relative importance in the two specified cases is not very felicitous. He says: "Of course, if 1000 deaths from a particular disease in a town are reduced to 950, and in another town 50 are reduced to 0, the same number of lives—viz., 50—are saved in each town; but to argue that the importance of the result is the same is very much like arguing that if one man has £1000 and loses £50, it is of the same importance to him as it is to a man who has £50 and loses all." This is to regard the reducing death-rate from the undertaker's point of view, which is naturally gloomy. Allow me to suggest a different illustration—viz., that of a man who, with an initial debt of £1000, pays it off by periodical instalments of £50. What I contend for is that in paying the last instalment, although the relief to his mind may be considerable from the fact that the debt

is at length cancelled, the effort required, the labour expended, is not necessarily greater than in paying the first. In reducing the number of deaths from 1000 to 0 there will be at least twenty times as much to do as in reducing 50 to 0, provided zero be a possible limit; and the reductions from 1000 to 950 and from 950 to 900 are by no means easier than other stages in the progress. It is by a regard to *remedial* sanitary administration, and not by a blind trust in any system of notification, that zymotic diseases will be most effectually stamped out. The case of Manchester, as referred to by Professor Corfield, still points the moral. But I fail to see that the dual system is likely to prove superior to the single system in repressing diphtheria. Huddersfield, Oldham, and Portsmouth have not been able to cope with epidemics of this disease one whit better than London has done under no system of notification. In 1887, when the death-rate from diphtheria was high throughout the country, it was, in London, 0·23; in Portsmouth, 0·34; in Oldham, 0·41; and in Huddersfield, 0·42. In Bradford, under the single system, it was only 0·05; in Nottingham, 0·03; but in Norwich 0·23, which, though high for the single system, was surpassed by no less than four towns under the dual system—viz., the three above-named, and Preston.

I am, Sirs, yours faithfully,

Kingston-on-Thames, Sept. 21st, 1889. D. BIDDLE.

P.S.—In saying that *The Times* evidently considered his letter as conclusive, Professor Corfield seems to forget that concurrently with the letter in question appeared three others, and that two of these took the contrary part. One of the latter was from me, and has never been answered yet. I could not expect *The Times* to give me space for another letter, when it had already inserted four of mine on the same subject; and the discussion was practically closed there by the passing of the Bill. As a matter of fact, however, I did write again to *The Times*, replying to Professor Corfield by a sentence or two, but devoting the greater part of my letter to Dr. Farquharson, M.P., who, as shown by Mr. Corbett's recent letter to THE LANCET, was grievously mistaken as to facts connected with the medical profession in Kingston.—D. B.

"HINTS TO STUDENTS BEGINNING."

To the Editors of THE LANCET.

SIRS,—If "Experientia Docet" will excuse my correcting him I think he means that the term "physician" is used throughout nearly the whole of the English-speaking world as equivalent to medical practitioner. That is an intelligible proposition, but surely somewhat exaggerated, for though in the United States medical men in general practice are commonly called physicians, the word in the British islands is certainly generally used in a more restricted sense. Doubtless, St. Luke, the beloved physician, and Hippocrates himself were general practitioners dispensing their own drugs; but it is surely not now customary to style a man who prescribes and sells bottles of medicine for from 4*d.* to 5*s.* a physician, whether he be an L.S.A. or an M.D. Lond. It is quite true that the most divergent views are held among educated lay persons and amongst medical men themselves as to what is implied by the word. I may mention a few of these. 1. A physician is merely another term for a medical man, and is thus equivalent to the French *médecin*, the German *arzt*, or the Russian *vrach*, none of whom, by the way, are supposed to dispense. 2. A physician is an M.D. 3. A physician is a somewhat superior sort of medical man. 4. A physician is one who is at least a licentiate of some College of Physicians. 5. A physician must be a member of the London or Irish College of Physicians or a Fellow of the Edinburgh College, or must practise according to the rules enjoined on those holding those diplomas. 6. A physician is a consultant in surgery or medicine who takes no fee under a guinea.

If the first view be held, there is no term to distinguish the qualified proprietor of an open surgery or sixpenny dispensary from the F.R.C.P. who is physician to a great hospital. The second view is never held except by lay people. The third view is that which is held by a number of men, who put "physician" on their door-plates in the hope of making their patients think them superior to their opponents, who content themselves with the old-fashioned title of "surgeon." The fourth view, though it is held by many members of the profession, always seems to me rather senseless, for it can hardly be contended that an L.R.C.P.E. is far superior to an L.S.A.—or, at all events, to an M.B. The fifth view is the one, I think, which most nearly describes the way in which the term has generally been used in professional circles; and the sixth is confined to a small proportion of lay persons.

It is hopeless to expect to get any universally acknowledged definition of the word, and consequently it will, by a process of levelling down, soon come to be what "Experientia Docet" considers it now, the proper appellation of all medical men, and therefore no more distinctive in the profession than the term "esquire" is outside it. I cannot help hoping that this equalisation may take some time.

I am, Sirs, yours truly,

September, 1889. THEODORE MAXWELL.

WHY DOES THE UTERUS CONTRACT DURING PREGNANCY?

To the Editors of THE LANCET.

SIRS,—The answer to the question, "Why does the uterus contract during pregnancy?" has so far eluded the investigations of physiologists, or at any rate text-books of obstetric medicine are of one accord in omitting to explain why such contractions occur, though they all present a clear description of the phenomenon itself, and assign to it an important position as one of the most trustworthy indications of the gravid state. In this connexion I venture to suggest that the cause of the continuous rhythmical movement is to be sought in the necessity for a more effectual removal of the blood contained in the utero-placental sinuses than would ensue if its return thence was entirely dependent on the normal forces by which circulation is effected in the natural venous channels. We have the authority of Playfair for the statement that the intermittent contractions occur every five or ten minutes, sometimes oftener, rarely at longer intervals, and that this alternating hardening and relaxation of the womb persists throughout the whole period of utero-gestation. We are all now familiar with the facts that the chorionic villi of the fœtus dip freely into the sinuses of the uterine wall, and that in this situation an exchange takes place between the fluids on the fœtal and maternal sides of the thin villous membrane which alone separates them; that the blood of the mother is thereby charged with excretory products from her offspring, and that the blood of the latter is purified and enriched by receiving oxygen and nutritive material from that of the former. The maternal blood is thus rendered especially impure at a spot where, owing to the anatomical arrangement of its containing structures, there is practical stagnation of the current. This necessarily leads, in time, to the excitement of irritation in the reflex centre governing the movements of the uterus, and as a result the muscular walls of this organ receive the summons to contract and expel the accumulation of carbonic-acid-laden blood as soon as this is gathered in amount sufficient to set the reflex mechanism in action. In this way the regular recurrence of the contraction is clearly to be explained; and also, I venture to think, the reason why almost similar movements of the womb continue when even death of the fœtus takes place a long time prior to its expulsion. In such a case the placental structures have naturally been developed in due course, and continue to be so until the accident happens which terminates the life of the embryo; the sinuses, consequently, continue to exist as blood receptacles, notwithstanding that no further interchange takes place between their contents and the fœtal blood. The supposition I advance also affords an explanation of the variation in rate of contraction noticed in different cases, for it is clear that accordingly as the maternal blood is drawn upon by one or more fœtuses, or by fœtuses varying in size, so will it be more slowly or more quickly depreciated in quality, and the occasion for its more or less rapid circulation in the uterine walls be called forth.

I do not propose to consider here the objections to the above hypothesis, which may be based on the existence of irregular contractions in uteri the seat of tumours other than those following conception. They will not, if duly credited with all the weight attributable to them, invalidate the theory; but their discussion would be out of place in this letter, which I am hopeful you may think worthy of being submitted to your readers.

I am, Sirs, yours faithfully,

Chudleigh, Sept. 12th, 1889. CHARLES H. WADE.

"ACUTE EPIGASTRIC PAIN IN PREGNANCY ASSOCIATED WITH ALBUMINURIA."

To the Editors of THE LANCET.

SIRS,—Mr. Bailey's accurately described case in your issue of the 14th inst. is worthy of remark. The whole clinical course of the illness might indeed be considered as typical.

In my paper on this subject published in THE LANCET, and to which allusion is made, I drew attention to some of the more leading features of this condition. One characteristic of the pain is apparently its severity, as evidenced by Mr. Bailey's patient and my own, who both considered the consequent labour pains as trivial in comparison. This alone should serve to differentiate it from dyspepsia. It is not constantly present, but rather assumes a rhythmic type of appearance, and it is always referred to as passing from the epigastrium through to the spine. Opium does not seem by any means a desirable or effectual remedy, and Mr. Bailey's observation as to the value of cocaine should be borne in mind. Should any practitioner meet with a similar condition, the question of induction of premature labour will always arise, and I can but think, seeing how rapidly amelioration of all symptoms follows the termination of labour, that much is to be said in favour of such a course. However, until more cases are published, and thus more data are at our disposal, no rules can possibly be laid down for treatment, and we must content ourselves with the scant comfort of knowing that it is unusual in occurrence, but dangerous.—I am, Sirs, yours faithfully,

Grosvenor-street, W. JOHN PHILLIPS, M.D.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Presentation to Mr. Reginald Harrison.

FOR some time past the members of the profession in this city have heard of the intention of Mr. Reginald Harrison, senior surgeon to the Liverpool Royal Infirmary, to leave Liverpool for London. While regretting very much the loss of so able and popular a *confrère*, his medical brethren feel confident that this step will tend to promote his interests and to raise him still higher in the estimation of the profession and the public. Arrangements have been made for presenting him with a testimonial at a complimentary dinner, which is to take place on Saturday, the 5th prox. A large number of subscriptions have already been received by Dr. Alexander Barron, the honorary secretary, and many have already intimated their intention of being present at the dinner. Mr. Harrison's connexion with Liverpool covers a period of thirty years, and has been throughout one of continued success.

The Royal Infirmary (Surgical Wards).

In Mr. Rushton Parker's wards there are at present two cases in which he has recently opened the bladder above the pubes, after the example of Mr. A. F. McGill of Leeds; one for enlarged middle lobe of prostate, which was excised, the other for ulcer of bladder in a tubercular subject in whom perineal section had been twice done without permanent relief. Both cases are so far entirely relieved, and doing perfectly well. The patient was placed in the inverted position, as adopted by Dr. Trendelenburg of Bonn, by which means the intra-peritoneal space was easily and safely reached, without distension of either bladder or rectum. These suggestions are of the greatest importance in the surgery of the bladder. Mr. Parker has also a case of fracture of the neck of the femur in a woman aged seventy-eight. She lies in a Thomas's hip splint, which for this fracture Mr. Parker has during more than ten years found to be all that its author claims for it in preventing non-union. In herniotomy, inguinal and femoral, Mr. Parker has in the last twenty-five cases practised the method of Dr. Macewen of Glasgow, in the treatment of the sac and the management of the wound; he thinks most highly of it. Another of his cases is that of a married woman aged thirty, who has had a tight stricture of the rectum for some years, supposed to be syphilitic. This has been excised entirely, and the patient has not had a day's illness since. For ordinary stricture of the urethra Mr. Parker employs internal urethrotomy with Maisonneuve's instrument. The patient is invariably kept in bed the night after for safety, but gets up next day, and often goes home or to work at once if he so desires. Mr. Parker recently removed a sarcomatous tumour blocking up the pharynx. The patient was a young man, and the tumour not apparently increasing in size. The removal was effected by the fingers and various forceps. The sense of smell and hearing, previously nearly gone, returned at once, and the patient has so far recovered without a bad symptom, in spite of profuse hæmorrhage. In a lad aged sixteen, an ossifying sarcomatous tumour of the left clavicle involving the outer half of the bone and some neighbouring soft parts was excised with rapid healing without fever or suppuration. No confidence is felt yet as to the ultimate result, but so far the patient can use the limb almost unimpaired. For chronic tuberculous lymph glands Mr. Parker performs excision frequently. Occasionally, but very seldom, he finds scraping sufficient, but many cases he has excised have been previously scraped by others, this proving often inefficient.

Liverpool, Sept. 24th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The Scarlet Fever Epidemic.

THE scarlet fever epidemic in the city continues with unabated severity. The number of inmates in the special hospitals at the time of writing is 323; there are also 26 cases outside, in addition to 20 cases in the King's Norton and Aston infectious hospitals. Fortunately the death-rate is very low: thus the zymotic death-rate for last week was 1·7 and the general mortality for the city in the same week was 14·1. The Health Committee are placed in a difficult position in their efforts to cope with the infection, and are endeavouring to get more land for increased hospital accommodation. Some negotiations have taken place with the Lunatic Asylums Committee for a piece of land adjacent to the present site, and after prolonged deliberations a plot has been granted, subject to the approval of the Lunacy Commissioners. This is no time, however, for the play of red-tape officialism, for what is wanted is immediate and energetic action to cope with the rapid spread of the disease, and the treatment in a satisfactory manner of present cases. The staff at the three hospitals number seventy-six. Unfortunately nine of the nurses are *hors de combat* from the disease, and one of the medical officers, Dr. Eustace Hill, lies in a dangerous condition. Some correspondence has taken place between Mr. Chesshire and Dr. Bostock Hill in reference to the aggregation of patients suffering from this infectious disease; but the latter gentleman has shown that the acute cases have at least 1200 cubic feet space, which is probably much in excess of what they would get at their own homes. The other objection raised by Mr. Chesshire, that there is a high probability of the excreta from these patients spreading the disease by contaminating the sewers, need hardly be discussed in the light of modern knowledge of the disease. The President of the Sanitary Congress now sitting at Worcester made some pertinent observations as to the value of the new Act for the compulsory notification of infectious diseases. It is worthy of note that the health committee of this city are fully alive to the desirability of enforcing this Act at the earliest date consistent with its adoption by the city council; they will then have a valuable aid to their efforts to combat and suppress this epidemic. In the meantime there is no occasion for panic, and the utmost confidence is felt in the wisdom and discretion of the authorities.

Catapult Nuisances.

An instance of the danger of this juvenile nuisance was exhibited a few days ago in the case of a boy admitted into the General Hospital with one eyeball completely smashed by a missile from one of these dangerous instruments.

The Ear and Throat Hospital.

A special meeting of the governors of this institution was held on the 20th inst., to consider the proposal to erect a new hospital at which provision shall be made for in-patients as well as out-patients. The mayor occupied the chair. The report showed that there were largely increasing demands upon the usefulness of the hospital; it was stated that in

the five years ending 1888 the number of cases treated averaged 3198 per annum, as compared with 1730 for the previous five years. Promises of donations towards this object were recorded, and the plans appeared to be feasible and well calculated to meet the requirements needed.

Birmingham, Sept. 25th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

ALTHOUGH not strictly an association paper, the lecture which Mrs. Stopes of London delivered on Wednesday, Sept. 18th, on "Women's Dress Considered Physiologically and Psychologically," was as well attended as most of the sectional meetings, and was full of interest on this much-debated subject. Dr. Philipson gracefully presided, and Dr. Embleton joined in the discussion. Mrs. Stopes pointed out in her admirable lecture the various fashionable follies of her sex as regards dress, how many a girl goes out through the day dressed in tweeds and furs, and shivers at night in some of the various miseries of full dress. She said that no woman who wears high heels has the full use of her life or of her brain possibilities. When combined with tight shoes, as they generally are, her feet swell, and exercise becomes unpleasant and painful. She reclines on a sofa, becomes delicate, lames herself, and establishes in civilised Europe an imitation of the Chinese feminine foot. Mrs. Stopes says that the only place where high heels are really valuable is when we are walking up hill. She stated that she had some thought of taking out a patent for movable heels to be screwed on when ascending mountains, but the woman who wears high heels is perpetually walking down hill, and that one must remember the strain of a long-continued descent well enough to understand the effect of this injurious habit. Tight lacing she considers a national evil, and one to which the thousand nameless weaknesses and languors of the sex are often to be justly attributed. Last year, she said, when this subject was touched upon in the Physiological and Anthropological sections of the British Association, she mentioned that the female waist had decreased by two inches during the last twenty-five years. This may have been by the force of fashion during that period, inducing women to compress their figures and risk these evils, or it may have been through their having inherited a lowered vitality from mothers who have laced tightly in the past. The question is worthy, she said, of consideration whether women from any motive are justified in following fashion to an extent that not only tends to lower their own health, but to lower the physique of the whole nation. Any standards of taste recognised by the civilised world were based on the old statues of Greece, fashioned at a time when unhealthy and decrepit children were "put away," when there were no hospitals, and when exercise was a necessary part of education. But the statue of the Grecian Venus was five feet two inches and a half, and the size of the waist was twenty-six inches. "What modern Venus would not be horrified to appear in such proportions as these?" The remedy for these evils of fashion is to be looked for in the help of all women, and fathers, husbands, brothers of women, to elevate and develop a true standard of art-ideal, to "consider what forms of clothing are best fitted to develop the feminine frame naturally, healthily, perfectly." Mrs. Stopes' remarks were loudly applauded. During an interval in the work of the association, Sir H. Acland, K.C.B., accompanied by the Bishop of Newcastle and Dr. Embleton, visited the Newcastle City Hospital for Infectious Diseases. The whole arrangements, especially the provision of single bed wards for private patients, received the commendation of the visitors. Within the last few days a monument has been erected in Jesmond cemetery as a memorial of the late Dr. Luke Armstrong. The structure is of classic design, and is entirely built of polished Aberdeen granite. A committee of Wallsend workmen have purchased a complete ambulance carriage, built to their own order by Messrs. Atkinson and Philipson of this city, and having all the most recent improvements. In this good work the Tyneside workmen have followed the example of their Leeds brethren, and this commendable interest of workmen in ambulance work is increasing.

The Health of South Shields.

Dr. Munro, the medical officer of health for South Shields, states that during the past year the rate of infantile mortality was not only the lowest on record, but was under the average of England and Wales, and considerably under the rate ruling in the urban districts of England. The like held good of the death-rate from zymotic or infectious diseases. The gross death-rate was considerably below the average of the twenty-eight principal towns, and slightly under the average of the fifty smaller towns, although it was slightly above the average of England and Wales. The birth-rate on an estimated population of 69,500 furnished a rate of 36·1 per 1000, the lowest birth-rate on record. The gross death-rate was 18·201 per 1000 of the population, which was the lowest on record save that of 1881.

Northumberland and Durham Medical Society.

Under the presidency of Dr. James Murphy of Sunderland, this Society has taken a new departure in having a night devoted to a special address from an eminent member of the profession outside the Society—Mr. Lawson Tait. From what I can learn, there is likely to be a large gathering on the occasion at the Newcastle New Medical College. After the address on the 4th prox. a banquet will be held, open to all qualified practitioners.

Newcastle-on-Tyne, Sept. 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Edinburgh Cow-houses and the Public Health.

MR. COOPER, the burgh engineer, acting under instructions from the magistrates, has recently been engaged in making a thorough inspection of the Edinburgh cow-houses. From his report it appears that they are almost without exception wanting in some of the essentials of a good sanitary condition. As this has a direct bearing on the milk-supply of the city, the details of the report afford ample food for reflection. Out of 220 byres in which are housed 2781 cows, only eight are "all but" in accordance with "the rules and regulations for cow-sheds, cow-houses, and byres"; that is to say, not a single one is so constructed that no exception can be taken, but there are eight which conform fairly well with rules and regulations; whilst, as will be seen from the following details of Mr. Cooper's report, most of the cow-houses are eminently unsuitable for the purpose for which they are used. He states (1) there are eight byres where the cubic capacity is sufficient, but having a number of more or less serious defects as regards structure, paving, draining, &c.; (2) sixty-two where the cubic capacity is insufficient, but the places are otherwise in fairly good order; (3) twenty-four where the cubic capacity is under standard amount (800 cubic feet for each animal), more than two-thirds of the same having more or less serious defects as regards the structure, paving, drainage, and cleanliness; (4) thirty-three where the cubic capacity is less than two-thirds, but more than one-half of the standard amount, besides having more or less serious defects as above; (5) thirty-four where the cubic capacity is less than a half of the standard amount besides having a number of more or less serious defects as above; (6) fifty-one where entire reconstruction ought to be insisted upon. When it is further considered that many of these byres are built in quite unsuitable localities, and that the cows in many of them are confined from year end to year end, and are under very imperfect veterinary supervision, it is not to be wondered at that when any epidemic does occur amongst them it is almost invariably attended with most disastrous results. Apart from all this, milk allowed to stand for even a very short period in such badly cared-for places must inevitably become deteriorated in quality, and will be more likely to collect various organisms than when the byres are well ventilated and cared for. It is greatly to be desired that the present scare about pleuro-pneumonia, accompanied as it is by a considerable drain on the ratepayers' pockets (through the public health department, by way of compensation for slaughtered animals), will call attention to the fact that by far the most economical plan

for both producers and consumers will be to build good cow-houses on proper sites. It does not pay any farmer to keep sickly cattle, and many of those whose byres are not in the worst possible condition would be incalculable gainers were they compelled to put up well-ventilated and well-drained cow-houses. The consumers of milk would gain in confidence if not directly in pocket.

Suggested Experimental Station.

Professor Chiene recently sent a letter to the Fifeshire local authority in which he offered to carry out a number of experiments on the inoculability of pleuro-pneumonia in cattle, especially with regard to the particular organism that is the cause of the disease. He thinks that if this could be found there might be some possibility of obtaining a protective virus. He asks the local authority to supply such a station (say, one of the islands in the Forth Inchcolm) and animals for experimental purposes. As his share he offers the use of his laboratory and his assistant to do the work. Such combinations have succeeded in France and in other countries, and there is no reason why equally good results should not be obtained in Scotland, not only in the case of pleuro-pneumonia, but also in the other diseases about the nature of which there is still any doubt.

Post-graduate Classes.

This year the post-graduate classes are not arranged quite as in former years. It has been found by experience that men coming up to study like to get something of everything and everything of one thing. The clinical and general classes are arranged as before, but some of the special courses are more elaborate and occupy a longer time than in previous years. For some of these classes a special fee is charged. How far the change will be acceptable to the graduates still remains to be seen.

Edinburgh, Sept. 23rd.

GLASGOW.

Report on an Insanitary Industrial School.

LAST WINTER an epidemic of a somewhat puzzling character, fully described in THE LANCET at the time, broke out in Abercrombie-street Roman Catholic Industrial School for Boys, Glasgow. The disease was of an obscurely febrile nature, associated in some cases with pneumonia. There were 23 cases and 4 deaths. After most careful investigation, the sanitary authorities of the city reported that the locality and its surroundings were not suitable for so large a school. The school managers and their medical adviser opposed this view, and resisted the suggestion that the school should be removed. A report now issued by Colonel William Inglis, the inspector appointed to visit the certified reformatory and industrial schools of Great Britain, quite bears out our local authorities. He states that this is not the first time that attention has been drawn to the sanitary condition of this school. In 1887 he reported that there was insufficient space for so large a number of children. In the previous year he reported the situation as unhealthy. In 1885 he said: "The school is very subject to epidemics," and referred to two during that year, one of small-pox and one of measles. In 1883 and previous years attention was drawn to the fact that the children when admitted were generally of a very feeble type, and that fresh air and healthy surroundings, with warm clothing, plenty of good food, accompanied by individual care and attention, were especially necessary for them. In view of such a serious report the managers have under consideration the removal of the school, but there is some difficulty in obtaining a site near Glasgow. "If this difficulty is not soon surmounted," states the inspector, "I see nothing for it but to close the school."

Glasgow, Sept. 23rd.

ABERDEEN.

The Health of the City.

DR. HAY, in his report for the month of August, says the health of the city has been very satisfactory. The death-rate from all causes—viz., 13·57 per 1000—is much below that of any previous month in the present year, and is lower than that of the immediately preceding month by 3·8 per 1000. The decline is chiefly evident in deaths among persons under five years of age and persons above sixty, and is due in part to a large decline in the miasmatic death-rate, which has fallen to 9·7 from 29·1 per 10,000 in the previous month. As compared with the same month in the previous ten years, the total death-rate for last month is distinctly the lowest, and is lower than the average by 2·85 per 1000. The epidemic of measles is now rapidly drawing to a close. In December last, twenty cases of measles were reported, and for the first five months of the present year the numbers increased steadily until in May 731 cases were reported. Then in June a decline set in, and for that month the number was less by 200, and in August only 73 cases were reported. The mortality from measles during August was high—viz., 1 in 8, the highest recorded in any month since the commencement of the epidemic. After an absence of a month, scarlet fever again returned, and a few mild cases were reported. The cases of whooping-cough were exceptionally small in number, while the number of cases of diphtheria and typhoid fever was slightly beyond the average, but nearly all of them were mild. At the end of the month there were only seven cases in the City Hospital.

Aberdeen, Sept. 23rd.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Amalgamation of the Dublin Medical Schools.

AT last the amalgamation scheme may be regarded as *un fait accompli*, all difficulties having been removed, and the new Schools of Surgery, Royal College of Surgeons, including the Carmichael College and the Ledwich School, will be an undivided centre of medical education. The new professors &c. will be elected about the latter end of October, and the winter course of lectures will commence as usual on November 1st. The Council of the Royal College of Surgeons have had many difficulties to encounter in carrying to a successful termination the scheme of amalgamation, and deserve the thanks of all interested in medical education in this city for their disinterested services.

The late Dr. Robert McDonnell of Dublin.

Some members of the profession have thought it advisable to have some permanent memorial of the late Dr. McDonnell, whose untimely decease they, in common with many of the community, so deeply deplore. It has been suggested that a marble bust and a portrait, to be placed in the Royal College of Surgeons, of which he was an ex-President, would be a suitable tribute to his memory. A committee, of which Mr. Austin Meldon, President of the College, acts as chairman, has been formed, and Mr. Anthony H. Corley will be the honorary secretary.

New Cavalry Barracks, Dublin.

The new barracks at Grangegorman, near the Phœnix Park, are rapidly approaching completion. The ground covers an area of twenty-five acres, and when some additional works, now under consideration, are finished, it will allow accommodation for about 500 officers and men, with the same number of horses. The dormitories will be well ventilated and supplied with the most approved sanitary appliances; while the recreation rooms will consist of a coffee- and reading-rooms, also fencing and lecture rooms. The cost of the barracks will be about £60,000. The recent cold weather has been felt greatly by the men under canvas in the Park, and it is contemplated that in a week or two one of the two regiments will be moved to the Royal Dublin Society's premises at Ball's Bridge for the winter; while the other regiment will be sent back to the quarters they formerly occupied in the Royal Barracks.

St. Vincent's Hospital, Dublin.

After serving for upwards of thirty years as visiting physician to St. Vincent's Hospital, Dr. Quinlan has relinquished his clinical duties, and has been appointed consulting physician to that institution. Dr. Quinlan retires in compliance with the regulation of the hospital, which limits the tenure of office of the members of the visiting staff to twenty-five years.

Pauperism.

The returns of pauperism for the June quarter of the present year, which have been furnished by the Local Government Board, show a decrease of 1185, or 2·6 per cent., in the average number of workhouse inmates on Saturdays during the quarter, and a decrease of 2228, or 3·4 per cent., in the average number of persons on out-door relief.

Dublin, Sept. 24th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Executions by Electricity.

AT a recent meeting of the Academy of Sciences, the Perpetual Secretary read a paper from Mr. Edison on the application of electricity in place of hanging as a capital punishment. In this report Mr. Edison compares the effects of the continuous currents with those of the alternative currents, and he gives the preference to the latter, as he believes that they will cause death without any pain whatever. He described some experiments which he had performed on several of his own workmen. To a question that was put to him, as to what time it would take to consume a body, Mr. Edison replied that the body would not be consumed, but that its temperature would only be raised by three or four degrees, and that the body would then remain as if mummified. Mr. Edison concluded his communication with the impression that death by electricity may be produced instantaneously and without pain. Mr. Edison's paper was referred to the sections of physics and of medicine, and M. Marcel Desprez, the eminent electrician, is to draw up a report on the subject.

Preventable Mortality in the French Army.

The authorities have been somewhat alarmed at the number of deaths in the army this summer caused by diarrhœa and typhoid fever. These diseases have been attributed to the imprudent ingestion of contaminated water, as well as to meat in a state of decomposition which has been distributed to the soldiers. In a report drawn up by Drs. Poincaré and Macé of Nancy, the authors recalled that contemporary science has demonstrated that there sometimes develop in alimentary substances of animal origin extremely active poisons, the nature and the genesis of which are hardly yet determined. These poisons, called ptomaines, originate in the course of putrefaction. It is to ptomaines and not to microbes that must be attributed the toxic phenomena which follow the use of stale sausages &c. The same authors have also found in a great number of alimentary preserves the presence of living microscopic germs. All preserves, even those that are well prepared, are, it would appear, susceptible of these alterations. Germs which are entombed in these boxes are struck with catalepsy, but they soon become revivified on being exposed to the air. It is therefore considered advisable that immediately a box is opened its contents should be used; when this precaution is not observed, and in spite of every possible care, the rest of the preserve becomes putrid with a rapidity much greater than that of similar substances freshly prepared. The conclusion is that in the alimentary hygiene of the soldier the use of preserves should be abandoned; at any rate, in time of peace. As for alimentary preserves in time of war, this subject is being carefully studied by the military authorities. Among other things, a new sort of compressed bread has been submitted to the Minister of War for examination. This compressed bread, which is manufactured with similar flour to that used for the bread in use among the troops, and without any other addition, takes the form of a thin cake, which is easily softened and broken. Soaked in water for a minute this cake, of 340 grammes in weight, is then exposed to the air for a quarter of an hour. The bread then resumes its original size and its excellent flavour of fresh aliment. This new bread is recommended as being far preferable to the biscuit of old, so fertile of gastralgia and diarrhœa, and which Chenu, the celebrated army surgeon, justly condemned when he asserted that biscuit is to bread what salt meat is to fresh meat, with this difference, however, that the stomach supports salt meat better.

Place of Origin of the Human Race.

M. de Quatrefages, who is a confirmed monogenist, entertained the Academy with the definite results of his researches. He fixes the north of Asia as being the seat of the origin of the three principal types of the human race—the white, the yellow, and the black. Asia has remained the home of the yellow race, Europe was invaded by the white race, and Africa by the proto-semites and the black race. The three types are to be found in the Oceanic Islands. The invasion dates from the tertiary epoch. On the other hand, America was peopled only at the quaternary epoch by the white race.

Civilisation and Disease.

At the same meeting M. Milne-Edwards presented, in the name of M. Certes, an extensive memoir, in print, entitled "The Protozoaires of the Mission of Cape Horn," accompanied by drawings of extreme delicacy. According to the author, there are no pathogenic microbes to be found at Cape Horn. The Fuegians did not know anything about small-pox, measles, scarlet fever, or diphtheria before the inroads of civilised nations. Before the visit of the mission even pulmonary phthisis was unknown. Tuberculosis only commenced to establish itself in the country since 1881. M. Certes has given the drawings of the rhizopodes, the infusoria, brought up from a depth of 7000 metres, by the naturalists of the *Romanche*.

Health of Paris.

Notwithstanding the influx of visitors from all parts of the world to see the great Exhibition, the public health of Paris is considered to be excellent. The municipal report of last week shows a mortality of 867, instead of 890 during the preceding week. The average weekly mortality for the five corresponding previous years was 893.

Paris, Sept. 24th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The German Society for the Promotion of Public Hygiene.

THIS Society has just held its fifteenth annual meeting at Strasburg. Its first sitting was held on the 14th inst. in the Town Hall, and was attended by 220 persons. The secretary of the Society stated that the number of its members was 1160. Dr. Krieger, of Strasburg, the chief medical adviser of the government of Alsace-Lorraine, spoke on the hygienic conditions and arrangements of those provinces. He mentioned that, since the regulation of the course of the Rhine, intermittent fever, which used to be very frequent, and which was followed by goitre and cretinism, had almost disappeared; among the troops garrisoned in Strasburg, for instance, it had sunk from 80 to less than ½ per cent. The chief event of the first meeting was a lively debate on the measures to be taken for the attainment of healthy dwellings. The chief speaker was Dr. Miquel, Burgomaster of Frankfort-on-the-Main, and one of the leaders of the great National Liberal party. He explained and advocated the proposals made by the committee appointed to study the question last year. The debate resulted in the acceptance of the proposals, which will now be laid before the Imperial Government. They are classified under four heads—viz., streets and sites, the erection of buildings, the construction of rooms for human habitation, and the use of such rooms. The second sitting was held on the 16th, and was opened by a lecture delivered by Professor von Ziemssen of Munich on Convalescent Homes. Among the various great advantages of such institutions he mentioned their economy, stating that the average cost of maintenance per patient in the Berlin and Munich hospitals was 2 marks 50 pfennigs (2*s.* 6*d.*) per day, and in the convalescent homes only 1 mark 75 or 80 pfennigs (1*s.* 9*d.* or 1*s.* 9½*d.*). In England, he added, the cost of maintenance in convalescent homes was only 1*s.* 4*d.* He recommended the example of the great convalescent home at Vincennes, which had recently established a branch home in Paris, in which the patients after leaving the home might spend two days looking for work. He recommended the establishment of homes in or very near cities for patients recovering from acute diseases, and of others in rural districts for chronic cases. This discussion was followed by a lecture of still greater interest and importance by Professor Heller of Kiel. Its theme was the prevention of tuberculosis, "the most dreadful and ravaging of all diseases." I much regret that space will not permit me to reproduce this lecture. The speaker was followed by Drs. Dettweiler, Cornet, and Wyss, all three well known as authorities on the subject. Dettweiler exhibited and recommended his pocket spittoon. Wyss went into details on the subject of the relation between the human race and the lower animals in the matter of tuberculosis, laying special emphasis on the fact that frequency of tuberculosis among the cattle of a district invariable goes hand in hand with corresponding frequency among the human inhabitants. The theme of the third and last day was railway hygiene, and was introduced by

Herr Wichert, Privy Councillor of Public Works in Berlin, in a masterly and exhaustive lecture on the construction of passenger carriages, the arrangement of the seats and bye-rooms (closets &c.), the construction of the seats and the furnishing of the compartments, the lighting, ventilation, heating, and cooling of the same, the arrangements for securing passengers against accidents, the regulations for the use of the seats, the arrangement of passenger carriages of special kinds and for special purposes or times, help in case of accident or illness, and, finally, disinfection. A lively debate followed, Wichert's opinion that the present system of lighting passenger carriages was sufficient, because it was not advisable to encourage people to injure their eyes by reading in trains at all, was met by the remark that one did not read novels only in trains, but also more important publications.

The Prussian Chambers of Physicians.

For the second time since the establishment of the Prussian Chambers of Physicians their representatives have been invited to take part in the deliberations of the highest medical official body in Prussia—viz., the Scientific Deputation for Medical Affairs. At the time when the said Chambers were organised the State granted them the right to be heard by the official authorities on certain general sanitary questions. Each chamber therefore received the right to send one representative to the Scientific Deputation and one to the chief medical official body of its province, and these representatives are permitted to take part in the deliberations, but not to vote. They are now regarded as extraordinary members of the Scientific Deputation, and are invited to take part in its deliberations once every year—viz., in November. The themes of discussion this year are to be the reform of the midwife system and the revision of the official text-book for midwives. These subjects will be introduced by Professors Olshausen of Berlin and Bockendahl of Kiel.

The Society of German Dentists.

The Society of German Dentists met at Kassel on the 15th and 16th inst. The main question discussed was whether the Society should resolve to form a union of guilds or a union of free societies, and the majority resolved to adhere to the former resolution of the Society and form a union of guilds. The Society numbers more than 300 members. Its next year's meeting will be in Leipsic. Hermann of Cologne demonstrated Humm's method of filling teeth with the help of a new sucking apparatus invented by the demonstrator himself, Rauhe of Düsseldorf, the filling of teeth with gold and gold tin, and Mueck of Berlin a new Charnier-lever apparatus, constructed by himself, for turning the axes of wry teeth, and other implements of the same kind.

Professor Anton Nuhn.

Professor Anton Nuhn, who died at Heidelberg lately, aged seventy-five, was, after Joseph Hyrtl of Vienna, the oldest German teacher of anatomy. He was one of the few anatomists of the past half century who made a discovery in descriptive anatomy. In 1845 he discovered the glands, now called by his name, at the end of the human tongue. He was also one of the first who studied the causes of deafness and dumbness anatomically. Among the other subjects on which he wrote, I may mention the connexion of the lymphatics with the veins, the structure of the skin papillæ, the secretion of the gall, and faulty structure of the heart. He was also the author of handbooks of surgical, practical, and comparative anatomy, and of a series of surgico-anatomical tables.

The Propagation of Phthisis.

There is a general agreement among medical men that the tubercle bacillus discovered by Robert Koch in 1882 is the germ of phthisis. Some are of opinion that this bacillus can settle only in the lungs of persons specially predisposed for its reception, owing to the presence of tuberculous disease in their parents, or to general inborn or acquired weakness in themselves. Dr. Cornet, one of Robert Koch's pupils, has been led by his investigation of the manner in which tubercle bacilli spread to a different opinion. He declares that tubercle bacilli are always to be found on the walls of rooms in which consumptive patients have lived, without the necessary care being taken for the removal of their sputum. He thinks that the spread of phthisis is due almost exclusively to the inhaling by healthy persons of tubercle bacilli emanating from the scattered and dried sputum of uncleanly consumptive patients, and that heredity and acquired predisposition are of quite subordinate importance. In order to settle the question, Professor Bollinger of Munich has made a proposal to the Bavarian Government. It is known that in prisons one-third or more of the inmates fall victims to phthisis. Bollinger proposes that one prison ward be as thoroughly disinfected as if cholera patients or plague patients had lain in it, that all prisoners suffering from or even suspected of tuberculosis be removed from it, that the sputum of those that remain be removed as Dr. Cornet prescribes, and that the ward be then observed for a length of time, with a view to ascertaining whether the cases of phthisis prove less numerous than before.

The Anatomical Society will meet in Berlin on Oct. 10th.

A joint-stock company for hygienic purposes has been founded in Berlin with a capital of 750,000 marks (nearly £37,500).

Professor Berlin, of Stuttgart, has been called to Rostock, as Professor of Ophthalmology and head of the University Eye Hospital, succeeding Professor Zehender, who retires owing to his advanced age.

Berlin, Sept. 23rd.

Obituary.

PROFESSOR RUDOLF VOLTOLINI.

PROFESSOR RUDOLF VOLTOLINI, whose death at Breslau we announced last week, was one of the first aurists and laryngologists of his time. His first writings on the treatment of diseases of the ear appeared about the end of the fifties in Virchow's *Archiv*, and in one of the earliest of them he described a new method of illuminating the organ of hearing and other cavities of the body. In 1860 he established himself as a private lecturer (*privat-docent*) in the University of Breslau. In the years immediately following he busied himself chiefly with the practical problem of making the new galvano-caustic method of operation available for the treatment of internal diseases of the larynx and the pharynx. In 1853 Middeldorff, guided by the physicist Gustav Kirchhoff, one of the inventors of spectral analysis, had showed how certain surgical operations could be performed better and more easily with the electrically heated wire loop, a discovery which became much more important when Victor Bruns of Tübingen proved the possibility of operating on the larynx through the mouth. Voltolini published the results of his studies and experience in 1867 in a book on the galvano-caustic method, and its application in diseases of the larynx. In 1868 he was appointed professor of otiatrics and laryngology at Breslau. The titles of his other most important writings are the "Examination of the Nose and the Pharynx," the "Diseases of the Nose," "Polypus of the Nose," and "Acute Inflammation of the Cuticular Labyrinth." He retained his mental powers unimpaired to the last, speaking and writing with great vivacity on question connected with the special subjects of his research.

DR. DE LEO, BEY.

AT the close of last week there died in Milan, on his return from Egypt, the Commendatore De Leo, Bey, the most distinguished Italian consultant in the dominions of the Khedive.

Dr. De Leo was a Sicilian by birth, his native town being Messina. Having qualified at the Neapolitan school just fifty years ago, he graduated in medicine, and was on the threshold of his career when the disturbed condition of his country drove him, like many others, into exile. He made Egypt his home, and threw himself with energy into professional life. He speedily acquired an extensive *clientèle*, not only among his compatriots, but in the European colony generally. He became body physician to the two Viceroys, Abbas and Ismail, and won their confidence in many ways by his medical skill and by his sound, cool judgment as an adviser and a friend. The influence thus

acquired he employed on behalf of the foreign population, British and French as well as Italian.

On the fall of Ismail he asked and received permission to retire from court, for reasons of advancing age. He still, however, practised as a consultant, and still interested himself in the European community, liberally devoting to charitable objects a portion of the fortune he had honourably amassed. His popularity, particularly with his compatriots, was immense, while the decorations of Commendatore of the Crown of Italy, and Officer of SS. Maurice and Lazarus, received from the Italian Government, attested his country's esteem for him. He possessed also many foreign distinctions, and was corresponding member of numerous scientific bodies in Italy and elsewhere.

"Always holding aloof," says one who knew him well, "from the political imbroglios of Egypt, he occupied himself with medicine pure and simple, and reflected honour alike on science and on himself. He was an ardent lover of his country, and allowed no year to pass without a visit to Italy, sometimes for many weeks." It was on one of these sojourns that he suddenly passed away, at Milan, as we have said, in the Albergo dell'Europa.

J. ADOLPHUS SMITH, M.R.C.S. ENG.,
SURGEON-MAJOR, ARMY MEDICAL STAFF.

SURGEON-MAJOR JAMES ADOLPHUS SMITH died at Bhamo, Upper Burmah, on Aug. 2nd, of intermittent fever, at the age of forty-one. He served in the campaign in the North-West Frontier of India in 1876, and was wounded in the chest; he was specially thanked by the Government of India for his services in a severe epidemic of cholera in Northern India. He was in charge of the 26th Field Company Royal Engineers in the Egyptian War of 1882 (medal and bronze star); and with the Nile Expedition in 1884-5 (clasp). Surgeon-Major Smith was recently in charge of the Station Hospitals at Bellary, South Station Hospital at Bangalore, Mandelay, and Bhamo. Before entering the service he had been house surgeon at St. Mary's, St. Peter's, and the Lock Hospitals in London, and had travelled widely.

H. E. B. FLANAGAN, M.R.C.S. ENG.,
SURGEON, ARMY MEDICAL SERVICE.

SURGEON HAROLD EDWARD BICKERSON FLANAGAN died on Aug. 8th, of typhoid fever, at the age of thirty-one, at Bangalore, Madras, where he had been doing duty at the South Station Hospital. Surgeon Flanagan was a man of very great ability. As a student at Guy's Hospital he achieved considerable distinction, obtaining the gold medal in medicine and various other prizes. In India, in addition to his high professional knowledge and character, he had already distinguished himself as a linguist, for in a few months he passed with ease the examination for the "high proficiency in Hindustani," and shortly afterwards the "higher standard in the Persian language." The Army Medical Staff loses in Surgeon H. E. B. Flanagan one of its most brilliant and promising members.

Medical News.

SUTTON SEWAGE SCHEME.—The Sutton Local Board has decided to purchase, at a cost of £1000, some additional land near the proposed site for the disposal of the sewage, when the scheme in contemplation is carried out.

FATAL FOOTBALL ACCIDENT.—A miner named Fox, of Carlton, twenty-six years of age, died on Sunday last from a fractured spine, sustained whilst playing in a football match between the Carlton Club and Hogg's Field United, Holbeck, on the previous afternoon.

LITERARY INTELLIGENCE.—Dr. Norman Kerr's work on "Inebriety" has been translated into Russian by Professor Kovalevsky of Kharkoff University, and published in Moscow. We understand that Mr. R. W. Partridge and Mr. E. Partridge, barristers-at-law, are about to publish an edited copy of the Lunacy Acts Amendment Act, 1889.

A SITE has been selected for a new station military hospital at Chester, near the Grosvenor-bridge, as part of the buildings connected with the headquarters of the new North-Western Military District. It is proposed to provide accommodation in the hospital for sixty patients.

MRS. MAYBRICK.—The Maybrick Committee have resolved to instruct counsel to apply to the vacation judge at next week's sitting for a writ of *habeas corpus*, on the ground that her sentence of penal servitude was illegal and *ultra vires*.

TRAPEZE ACCIDENT.—Another instance of the dangers attending acrobatic performances occurred at Pesth last week. While flying from one trapeze to another, a performer at Wulf's circus in the town missed his aim, and, falling outside the net, sustained serious injuries.

PRESENTATION. — A cheque for £100, together with a largely signed letter of regret at his approaching departure, has been presented to Dr. Edward Paget Thurstan, M.D. Univ. Camb., M.R.C.S. Eng., who is about to leave Southborough, Tunbridge Wells, and practise in the Canaries. Dr. Thurstan was a member of the local board, and took an active share in many philanthropic movements for the welfare of Southborough, where his presence will be greatly missed.

HUNTLY JUBILEE COTTAGE HOSPITAL.—On the 18th inst., a bazaar in aid of the endowment of the Jubilee Hospital at Huntly was opened in the Public Hall there, in presence of a large number of ladies and gentlemen, by the Duke of Richmond and Gordon. On the following day Dr. Farquharson, M.P., was present, and remarked on the gratifying success which had attended the previous day's proceedings and the excellent arrangements which had been made in the building for the welfare of the future inmates.

ENTERIC FEVER IN WELLINGTON, N.Z. — Mail advices state that enteric fever prevailed at Wellington, New Zealand, during the latter end of July, and the sanitary condition of the town was most unsatisfactory. Mr. Fulton, engineer for the Manawater Railway Company, had succumbed to the epidemic, whilst Captain Savill, aide-de-camp to the Governor, had been in a critical condition, but, according to the latest accounts, was improving. The Countess of Onslow and her children had left Wellington for Nelson, presumably to avoid unnecessary risk.

POISONOUS BERRIES.—On Sunday last three young married men, residents of Kilburn, went for a walk, during which they gathered a quantity of berries, which were taken to their respective homes, made into pies, and eaten. As a result, the members of the three families, numbering nine in all, were taken in the afternoon to St. Mary's Hospital, Paddington, suffering from poisoning. One of the young men soon rallied to treatment, but the remainder were, according to last accounts, still in a serious condition. The berries were of that variety commonly known as "deadly nightshade."

TUBERCULOUS DISEASE AND THE SHEFFIELD BUTCHERS.—On Tuesday a numerous meeting of butchers, attended by deputations from several towns, was held at Sheffield, in consequence of the medical officer of health, instigated by the prosecutions at Glasgow and other places, having condemned the carcase of a young beast which had suffered from tuberculosis. The question is, no doubt, of importance to the trade generally. The butchers contend that, in its primary stage, the disease does not render meat unfit for human food; whilst medical opinion asserts that meat affected by the disease at any period is unwholesome and not fit for consumption.

REPORTED DEATH UNDER CHLOROFORM. — The death is announced of Mrs. Neale, aged twenty-four, residing at Handsworth, Staffordshire, under painfully sudden circumstances. Mrs. Neale had decided to have several teeth extracted, and the family medical attendant, together with a local dentist, were called in. Chloroform was administered, but before she had drawn her breath half a dozen times she suddenly slipped from the chair and expired almost immediately. It is thought that death resulted from syncope brought on by excitement. The professional gentlemen engaged are stated to have taken every precaution in the administration of the anæsthetic.

AN INSANITARY DWELLING.—At a meeting, last Thursday, of the Vestry of St. James's, Westminster, it was reported that inquiries had been made with respect to the recent death in Berwick-street, when comments were made on overcrowding and insanitary dwellings. The case was that of a coach-painter named Ebers, who lived in a small back kitchen amid the most filthy surroundings. Dr. Jackson of Poland-street described the place as entirely unfit for habitation, and said it ought never to have been inhabited. The Sanitary Committee reported that there was no reason to take action as to the filthy state of the premises, as it was caused by the condition of the occupants.

BEQUESTS AND DONATIONS TO HOSPITALS.—The treasurer of the British Home for Incurables has recently received £20 as a donation from an anonymous friend resident in Somerset, Cape Colony.—The Duke of Portland has intimated his intention to make a donation of £50 towards the funds of the Doncaster Infirmary.—The late Miss Jane Winlaw, of 17, Queen's-road, Aberdeen, has left by her will the following legacies—viz., £2000 to the Royal Infirmary, Aberdeen; £2000 to the Incurable Hospital, Aberdeen; and £500 to the Sick Children's Hospital, Aberdeen.—Mr. John Beaumont, late of Ravensknowle, Dalton, has bequeathed £2000 to the Huddersfield Infirmary.—The net result of a concert held at Southgate on the 17th inst., in aid of the cottage hospital, amounted to upwards of £40.

HEALTH OF THE CITY OF LONDON.—Dr. Sedgwick Saunders, the medical officer of health for the City, reported to the City Commission of Sewers, at their meeting on Tuesday, that in his experience there had never been a summer when the city had been healthier or complaints fewer. The average death-rate was at the rate of 9·24 per 1000 per annum of the population; 741 houses had been inspected, of which eighteen required sanitary improvement. Thirty-three tons of meat had been seized and destroyed as unfit for human food. Serious defects were found to exist in the vaults beneath several of the City churches, and remedial measures were being proceeded with to abolish these insanitary conditions. At the mortuary, sixty-five articles of clothing had been disinfected and fifteen bodies received. There were registered in the City in the past seven weeks sixty-four deaths and ninety-five births.

MANCHESTER ROYAL INFIRMARY.—At the annual meeting of the board of the Manchester Royal Infirmary, Dispensary, and Lunatic Hospital or Asylum, the report, which was adopted, stated that during the twelve months ending 24th June last, 43,985 persons had received assistance at the Royal Infirmary and its allied institutions at Cheadle and Monsall, 36,143 being treated as out- and home-patients, against 33,288 last year. The total income for the year was £22,331 (a reduction compared with the previous year of £1203), and the total expenditure £21,514. The report adds that the "board do not regard with satisfaction the circumstance that so considerable a proportion of the working class of Manchester and the neighbourhood are in the receipt of charitable medical relief. They are of opinion that it will soon be desirable to take such steps as circumstances render necessary to require these patients to contribute much more largely than they have hitherto done to the funds of the institution."

GLASGOW AND OVERCROWDING.—Dr. James Burn Russell, medical officer of health for Glasgow, in his evidence before the Select Committee on Sweating, explained a system of ticketing and inspecting of small houses which had been in existence in Glasgow since 1862. Houses containing not more than three apartments and not more in the aggregate than 2000 cubic feet are measured, and have affixed to them on the outside door a tin-plate ticket on which the cubic contents are marked, and the number of inmates allowed in consequence. These plates are a guide to the night inspectors, who compare the number of inmates they find with the number the house ought to have, and a violation of the bye-law involves a summons before the magistrate. The system works very smoothly, and the authorities are satisfied that it is a great preventive of overcrowding. About 24,000 houses are on the register. The authorities intend asking for legislative powers to increase the allowance of 300 cubic feet of space per adult to 400 feet.

MISSION TO DEEP-SEA FISHERMEN.—Dr. W. T. Grenfell delivered a lecture in the Albert Hall, Leeds, last week in aid of the Mission to Deep-sea Fishermen. An interesting portion of the lecture was that which described the rough-and-ready means formerly used in bringing an injured fisherman to land, and the improved methods now adopted. Formerly a fisherman often bled to death because no means of aid were at hand, but now there were hospital ships, and all the fishing boats were fitted with proper temporary appliances for accident cases. The lecture, which was illustrated by dissolving views, concluded with a collection from the large audience in aid of the mission funds.

PROVINCIAL SUNDAY AND SATURDAY HOSPITAL COLLECTIONS.—The Henley Hospital Sunday collection, on the 15th inst., realised £26 2*s.* 2*d.*—The Friendly Societies' Church Parade, at Barnet, on the 15th inst., produced, after paying the expenses, £15 10*s.*, which has been divided between the Barnet Cottage Hospital and the Herts Convalescent Home.—The receipts of the recent sports of the North London Police and Tradesmen at Tufnell Park, in aid of the funds of the Great Northern Hospital, amounted to £50, which has been paid over to that institution.—The Committee of the Loyal Order of Ancient Shepherds, Bristol, has forwarded to the Royal Infirmary £23, and a like amount to the General Hospital, the Children's Hospital, and the Eye Hospital, Bristol.—The Hospital Sunday Collection at Ware, Herts, in aid jointly of the Hertford Infirmary and Herts Convalescent Home, produced nett about £60.—The Hospital Saturday Collection at Salisbury on the 21st inst. amounted to £58 2*s.* 11*d.*—The Hospital Sunday collection at Falmouth on the 22nd inst., in aid of the Cornwall Infirmary and Falmouth Dispensary, amounted to a little over £22.

CLAYTON HOSPITAL (AND WAKEFIELD GENERAL DISPENSARY).—The 102nd report of this institution, which was founded by Thomas Clayton in 1854, and incorporated with the Wakefield General Dispensary, established in 1887, was adopted at the annual meeting held last July. The report showed no particularly striking feature worthy of remark, the work during the past year having gone on steadily in much the usual manner. There had been an increase in the number of in-patients compared with the previous year, and the daily average number of beds occupied was thirty-one. Of out-patients the average number of cases per week was 877 against 677 in the preceding year. In making an urgent appeal for funds, the committee desire to remind benefactors and subscribers that "dispensary recommendations" are intended for the assistance of people whose weekly earnings are insufficient to meet the additional expenses incurred in times of sickness, and that to give these tickets to persons who are able to pay for advice not only has a pauperising effect upon the recipients, but is a positive injury to those very doctors to whom the institution is so greatly indebted.

COTTAGE HOSPITAL FOR MEXBOROUGH. — The efforts which have been made for some time past to establish a Cottage Hospital for Mexborough have at last met with success, and, owing to the munificence of Mr. A. Montagu, the working men of the district will soon possess an institution fitted up with every requisite. As a mark of gratitude, it has been decided to call the hospital "The Montagu Cottage Hospital." At a meeting of the Committee of the Hospital the following rule applicable to the medical staff was read and approved:—"Every duly qualified and registered medical man within a radius of three miles shall have the right to attend patients in the hospital upon the request of the patient, or his friends, conveyed through the nurse; but no patient, having chosen his medical attendant, shall have the right to change him during his stay in the hospital without the consent of the medical staff. A consultation of the medical staff may be called in serious cases, and shall be called before a major operation. In the absence of any request for a special medical attendant, the patient's ordinary club or private doctor shall be the one consulted. The medical staff shall consist of such duly qualified medical practitioners residing within a radius of three miles of the hospital as will, upon invitation of the Committee, allow their names to be printed in the rules of the institution, and their titles shall be 'surgeons to the Montagu Cottage Hospital;' such staff shall have the power to settle the provisional questions with regard to the carrying on of the work."

A GIFT TO GLOSSOP.—Mr. John Wood, of Whitfield House, desirous that the ratepayers should not be called upon to provide the additional amount required to complete Wood's Hospital, which his late uncle founded, has forwarded to the Town Council of Glossop, as a gift, a cheque for £1000, which more than covers the sum required. The late Mr. Daniel Wood, in the Jubilee Year, gave £6000 for the purpose of building the hospital, and £19,000 for its endowment.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on September 24th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	236	54	..	52	..	342	442
North-Western Hospital	237	35	..	5	..	277	435
Western ,,	183	13	..	8	..	204	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	276	14	1	26	3	320	462
Northern ,,	253	..	..	..	..	253	480
Totals	1185	116	1	91	3	1396	2483

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

CAMPBELL, H. J., L.R.C.P. Lond., M.R.C.S., has been appointed Demonstrator of Biology, Guy's Hospital.

CRISP, J., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon and Secretary to the Stamford, Rutland, and General Infirmary.

HEWLETT, C. W., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Coventry Hospital.

HUNT, ROBERT, M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Surgeon to the Blackburn and East Lancashire Infirmary, vice Dr. Stephenson, deceased.

JOHNSON, FRANCIS, M.R.C.S., has been appointed Medical Officer of the Beaconsfield District, Amersham Union.

JOHNSON, R. S., L.R.C.P., L.R.C.S. Edin., has been appointed Second Assistant Medical Officer to the St. Marylebone Infirmary, vice L. Hickey, M.R.C.S., L.S.A., M.B. Dur., resigned.

JONES, RICHARD L., L.M.K. & Q.C.P., R.C.S.Irel., has been appointed Government Physician for the District of Hanalei, Kauai, Sandwich Islands, vice Sidney E. Craddock, M.R.C.S., L.R.C.P. Lond., deceased.

MATTHEW, C. P., L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Medical Officer No. 5 District, Southmolton Union, vice Sanders, deceased.

MOULLIN, C. W. M., M.D., F.R.C.S. Eng., has been appointed Surgeon to the London Hospital, vice Couper.

MILLER, HUGH, M.D., has been appointed Public Vaccinator of the District of Birkenhead, in the Birkenhead Union, vice P. M. Braidwood, M.D., resigned.

O'REILLY, GEORGE HARTLEY, M.B. Lond., M.R.C.S., L.S.A., has been appointed House Surgeon to the Cancer Hospital, Brompton, vice C. E. Valpy, B.A., M.R.C.S., resigned.

PAPILLION, JAS. W., M.R.C.S., L.S.A., has been appointed Medical Officer of Brent Knoll District, Axbridge Union.

REARDON, D. F. B., L.R.C.S. Irel., L.K.Q.C.P. Irel., L.M., has been appointed Medical Officer of the Bruff Dispensary District, Kilmallock Union, vice MacNamara, resigned.

ROBERTSON, CHARLES, M.B. & C.M. Edin., has been appointed House Surgeon to the Birmingham New Workhouse Infirmary.

SIMS, G. S., L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Surgeon to the Derby Borough Police.

STARLING, E. H., L.R.C.P. Lond., M.R.C.S., has been appointed Demonstrator of Physiology, Guy's Hospital.

THOMAS, DAVID E., M.R.C.S., L.S.A., has been appointed Medical Officer of the Stradbroke District, Hoxne Union.

THORBURN, J. D., M.B. Toronto, L.R.C.P. Edin., has been appointed Resident Medical Officer to the Manchester Hospital for Consumption, vice Dr. Burnett, resigned.

TUBBY, A. H., F.R.C.S., L.R.C.P. Lond., has been appointed Demonstrator of Physiology, Guy's Hospital.

WHITELEY, D. F., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Wallasey Dispensary, vice F. H. Potts, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

GATESHEAD DISPENSARY.—Resident House Surgeon. Salary £200 per annum, with furnished apartments in the dispensary, coals and gas.

GENERAL DISPENSARY AND INFIRMARY, Jersey.—Resident Medical Officer. Salary £120 a year, with furnished apartments and attendance.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, London, W.—Resident Medical Officer. Salary £50 a year, with board and lodging.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—House Surgeon for six months. Salary £50 per annum, with board and residence.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House Surgeon. Salary £50 per annum, with board and apartments.

SOUTH DEVON AND CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100, with board and rations.

UNIVERSITY COLLEGE, Dundee.—Professor of Physiology. Salary £350 per annum, with two-thirds of the fees.

UNIVERSITY OF SYDNEY, New South Wales.—Applications to Agent-General for New South Wales, 9, Victoria-street, S.W.:—1. Challis Chair of Anatomy. 2. Challis Chair of Law. 3. Challis Chair of History. 4. Challis Chair of Logic and Mental Philosophy.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Honorary Dental Surgeon.—Also Honorary Surgeon.

Births, Marriages, and Deaths.

BIRTHS.

FENNELL.—On Sept. 17th, at Trumpington, Cambridge, the wife of Dr. C. A. M. Fennell, of a daughter.

HUNT.—On Sept. 19th, at Clydesdale Villa, Sheffield, the wife of Lewis Gibson Hunt, M.D., of a daughter.

MAC DOWEL.—On Sept. 17th, at Edenfel, Omagh, the wife of E. C. Mac Dowel, M.D., of Sligo, of a daughter.

MARTIN.—On Sept. 20th, at Brunswick-street, Sheffield, the wife of Dr. John W. Martin, of a daughter.

PESKETT.—On Sept. 20th, at Oakover, Burnham, Somerset, the wife of A. W. Chalmers Peskett, M.A., M.B., B.C. Cantab., of a daughter.

RENDALL.—On Sept. 8th, at Aix-les-Bains, the wife of Stanley M. Rendall, M.D., of a son.

RINGER.—On Sept. 18th, at Lower Seymour-street, Portman-square, the wife of Deputy Surgeon-General Theobald Ringer, late Bengal Army, of a daughter.

SCHLICH.—On Sept. 17th, at Coopers-hill, the wife of Dr. W. Schlich, of a daughter.

TOLLER.—On Sept. 20th, at Castle House, Ilfracombe, the wife of Charles W. E. Toller, Esq., of a daughter.

WEBB.—On Sept. 20th, at Kingsbridge, South Devon, the wife of W. H. Webb, M.R.C.S., L.R.C.P. Lond., of a son.

MARRIAGES.

DICKMAN—BARNES.—On Sept. 19th, at the Parish Church, Eye, Henry Dickman, M.B., Buntingford, Herts, to Edith Julia, elder daughter of Henry J. Barnes, Esq., J.P., Eye, Suffolk.

EVE—COX.—On Sept. 19th, at St. Mary's, Harrow-on-the-Hill, by the Rev. F. Hayward Joyce, Vicar, and the Rev. T. Smith, Frederic S. Eve, F.R.C.S., of 125, Harley-street, Cavendish-square, to Caroline Ella, only daughter of Herbert E. Cox, of Ashleigh, Harrow. No cards.

MACKENZIE—LOFTS.—On Sept. 11th, at the Presbyterian Church, Kimberley, South Africa, John Eddie Mackenzie, M.B., C.M., to Ethel Marian, second daughter of Frederic F. Lofts, Maude-road, Camberwell, S.E.

MCLEAN—LAWSON.—On Sept. 25th, at All Saints' Church, Fulham, by the Rev. W. Goodwin Kerr, M.A., William W. L. McLean, M.R.C.S. Eng., L.R.C.P. Lond., younger son of J. W. McLean, Esq., of Fulham Park Gardens, S.W., to Minnie, youngest daughter of John Lawson, Esq., of Italian Villa, Hurlingham-lane, S.W.

NEILSON—TULLIS.—On Sept. 19th, at Blackfriars Parish Church, Dennistoun, Glasgow, by the Rev. Thomas Somerville, M.A., assisted by the Rev. Albert Goodrich, D.D., Henry J. Neilson, M.D., Rulwell, Nottingham, to Annie Keil, eldest daughter of John Tullis, Esq., Inchcape, Dennistoun, Glasgow.

PRATT—MOXON.—On Sept. 19th, at St. Giles' Church, Northampton, by the Rev. R. A. White, M.A., W. Sutton Pratt, L.R.C.P. Lond., M.R.C.S., of Weedon, Northants, to Eleanor Mary, second daughter of William Moxon, M.R.C.S., &c., of Northampton.

STOKES—HILLER.—On Sept. 25th, at St. Margaret's, Whalley Range, Manchester, by the Rev. D. Dorrity, John Stokes, M.B., B.S., M.R.C.S., L.S. Sc., Parkgate, Rotherham, to Margaret Amy Hiller, only daughter of Henry Hiller, Stanley-road, Manchester. No cards.

DEATH.

RICHARDSON.—On Sept. 19th, after much suffering, at Camden-road, London, the residence of his sister, Charles Schofield Richardson, M.D., M.R.C.S., of Dursley, Gloucestershire, aged 61.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, September 26th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 20	29·65	W.	53	48	104	62	49	·14	Fine
,, 21	29·67	W.	49	45	108	60	43	·15	Fine
,, 22	29·64	N.W.	52	49	97	58	44	·03	Overcast
,, 23	29·93	N.W.	45	42	90	59	40	..	Overcast
,, 24	29·54	S.W.	55	54	68	61	44	·20	Raining
,, 25	29·82	N.W.	46	42	96	58	42	·66	Fine
,, 26	30·17	N.W.	47	44	87	58	40	..	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

ATTITUDE OF DROWNED PERSONS.

Mr. Ellis Lever.—The quotation is not free from "philosophic doubt." It is quite consistent with what we know of the spinal reflex actions when the inhibitory influence of the brain is abrogated—e.g., if you put a male and female frog into water impregnated with strychnia, the former exhibits the attitude of embrace, whilst the latter assumes the more passive state of limb extension. Probably these physiological forces as they die out with the death of the animal leave full play to purely physical forces; and in the case of drowning we should expect in most cases, whichever the sex, that the face would be found uppermost, the buoyant action of the gas in the intestines determining this position. We are, of course, assuming that it is a case of drowning in deep water.

TÆNIA.

To the Editors of THE LANCET.

SIRS,—A young lady, a patient of mine, has during the last six months been troubled with tapeworm (tænia mediocanellata). A year previously her life was for a time made utterly miserable by the presence of thread worms; these, under treatment, were effectually removed, but only to be replaced by the larger worm. The treatment adopted for the latter was two or three days' careful dieting, aperients, and a dose of male fern. Result: the passage of the worm. On three occasions this treatment has been carried out, and in each instance with a like result, and the passage of the head. Between the expulsion of the worm and its reappearance, which in each case has been exactly ten weeks, the greatest possible care has been exercised in avoiding improperly cooked meat.

I should be very much obliged if any of your numerous readers could suggest any treatment likely to prevent the recurrence of this troublesome parasite.

I am, Sirs, yours truly,

Sept. 24th, 1889. H. C. S.

TETANUS IN PUERPERY.

To the Editors of THE LANCET.

SIRS,—I observe in THE LANCET of Aug. 17th and Sept. 21st that Mr. Henry Peacock and Mr. Johnson Herbert remark that puerperal tetanus is not described in any obstetric work. Allow me to point out that the subject is fairly treated of in the System of Obstetric Surgery and Medicine by myself and Dr. Fancourt Barnes (see vol. i., p. 376, and vol. ii., p. 381).

I am, Sirs, yours faithfully,

Harley-st., Sept. 23rd. ROBERT BARNES.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—I notice in your Students' Number you recommend as one of the text-books on the Diseases of Children the work of Ashby and Jones. Permit me to correct this, and say that the book is by Ashby and Wright.

I am, Sirs, yours obediently,

Manchester, Sept. 25th, 1889. G. A. WRIGHT.

VACCINATION MEMORANDA.

A CORRESPONDENT having pointed out that the figures we gave in our last issue as to vaccination and small-pox on board the *Preussen* did not account for all the 312 persons referred to, we would add that in addition to the cases quoted there were sixteen persons on whom vaccination was alleged to have been performed, but who showed no evidence whatever of the operation. Whether these should be placed among the vaccinated or the unvaccinated it is impossible to decide. Two were attacked, and both recovered; but one, a girl, was twice vaccinated during the incubation period of her small-pox. The remaining thirteen do not, we find, happen to be referred to for the purposes of the paper under consideration; but a former paper by Dr. Ashburton Thompson shows them to have been persons who had previously had small-pox. Three of them suffered a second time from the disease, but they all recovered.

A. Neville.—We do not prescribe.

ATTENDANCE ON MEDICAL MEN AND THEIR FAMILIES.

To the Editors of THE LANCET.

SIRS,—Might I ask you to give me the benefit of your advice on the subject of attendance on medical men and their families?

The town in which I live is noted for its schools and educational establishments of all kinds. Not a year passes but I am called upon to attend some medical *confrère* who has retired from practice and the members of his family, or the children of men in active practice, pupils at one or other of the schools. Hitherto I have made it a rule not to charge in such cases. A few examples will serve to show you what my experience so far has been. I attended Dr. A. and his daughter on several occasions; in fact, during the whole of their stay here. Dr. A. left without calling or even writing to thank me. Surgeon B. consulted me for a very obscure affection, and was benefited by my treatment. He went up to London to see a celebrity, and I have never heard from him from that day to this, though he had promised most faithfully to let me know the great man's opinion. Dr. C., a well-known consultant, and now a member of one of our governing medical bodies, sent his two daughters to a school here which I attend. Both were very delicate girls, and were taken ill soon after their arrival. In the space of six months I was obliged to make no fewer than sixty-three special visits for these young ladies, and to keep up a long correspondence about them with their father. Dr. C., as a token of his gratitude, sent me a volume of his lectures, market price 5s., and a formal letter of thanks. These are typical, but unfortunately not exceptional, cases, and others of my friends tell the same tale. I should like to know whether I should be justified in pursuing a different course for the future. A word of advice from you on the subject would oblige,

Yours very truly,

Sept. 20th, 1889. AN OLD SUBSCRIBER.

*** The best service we can render in this matter is to publish letters such as the above, which set forth "the other side" of this question. It is impossible to maintain that a medical man has a right to claim the services of another medical man at all times and at much inconvenience without consideration and without gratitude. We can advocate nothing that would mar or lessen the feeling that one medical man has in favour of assisting another in any circumstances of illness. But this feeling must not be abused; yet it is easy to see that in such circumstances as our correspondent describes it is apt to be and actually is abused. In a city famed for its educational institutions great labour and hardship may be imposed on a medical man by the thoughtless use of this kindly rule, which was never meant to be indiscriminately applied in such cases.—ED. L.

THE BENTLEY PRIZE AT ST. BARTHOLOMEW'S HOSPITAL.

To the Editors of THE LANCET.

SIRS,—Would you be good enough to correct a mistake which appeared in your issue of Sept. 14th?

The Bentley Prize at St. Bartholomew's Hospital this year was not won by Messrs. F. W. Andrewes and E. A. Edelsten, who were last year's prizemen, but by Messrs. R. H. Elliot and R. F. Standage.

I am, Sirs, yours sincerely,

St. Bartholomew's Hospital, Sept. 25th, 1889. HENRY T. BUTLIN.

Cousin (Lincoln).—When cousins are healthy, and have no proclivity to disease, they may safely marry, but the existence of strongly marked scrofulous or other taint should be regarded as a bar to such marriages. Huth's book might be consulted on the subject of Consanguineous Marriages.

HYDROPHOBIA.

To the Editors of THE LANCET.

SIRS,—Could any of your numerous readers inform me as to the number of cases of hydrophobia treated in the larger hospitals of London during the past year? I am too old and infirm to make the inquiry myself. I was more or less connected with St. George's Hospital from the year 1825 to the year 1870, and I saw but two cases of the disease. Of course, some may have escaped my notice.

I am, Sirs, yours truly,

Buntingford, Herts, Sept. 13th, 1889. T. E. HICKS, F.R.C.S.

FELDSHERS.

IN rural districts in Russia, where the population is very scattered and towns are a long distance apart, it is impossible to obtain medical aid except on rare occasions, and after a long delay. Provision is, however, made for attendance in minor cases and for what might be called "first-aid" in serious ones by the distribution of partially educated men, denominated *feldshers*, or *feldscheers*, in the villages. The feldsher acts under the orders of the doctor who has charge of the district, and in serious cases summons his principal. The feldsher is a man who has had some training, usually in a special training school and in military hospitals, as a kind of hospital sergeant. He is now obliged to have a very fair general education, as he is not admitted to the feldsher school until he has gone through the four lower forms of a gymnasium or has passed an examination which is probably as difficult as the Arts examination of Apothecaries' Hall or the junior certificate examination of the Oxford and Cambridge Schools Examination Board. Both Latin and Greek were required until recently, but the Minister of the Interior has now issued a notice stating that Greek will no longer be required.

DR. WARD COUSINS' ANTISEPTIC ARTIFICIAL TYMPANUM.

To the Editors of THE LANCET.

SIRS,—I am very pleased to see, from your issue of the 14th inst., that Dr. J. Ward Cousins has brought his new antiseptic artificial tympanic membrane to the notice of the profession. From personal experience of over twelve months, I can frankly state that it fulfils all the qualities claimed for it and even more. For many years I have had a perforation of the right tympanic membrane, but no discharge during the past five years. I consulted several eminent aural surgeons, and used different kinds of artificial drums, but none of them improved my hearing, so that I was, to say the least, somewhat sceptical as to deriving any benefit. However, my doubts were soon dispelled on using one of the drums invented by Dr. Ward Cousins, for I could hear well, and have continued, by the use of the drums, to do so since. Only those who have been afflicted with deafness (even on one side) can appreciate the blessing of restored hearing. I have not experienced the slightest inconvenience from the presence of the artificial drum in my ear; in fact, I much prefer to have it there. Owing to the success and comfort in my own case, I have supplied them to several of my patients, and in all with marked improvement in their hearing. I will only mention two cases, which will, I think, be sufficient to convince anyone that in this new antiseptic tympanic membrane we have a very valuable invention.

J. L——, aged forty-four, a shipwright; very deaf in both ears; perforation of both tympanic membranes of twenty years' duration; no discharge. A drum was placed in each ear about six months ago; since then he has continued to use them and can hear quite well. He changes them twice a week.

The other is a still more remarkable case. E. A——, aged sixty-six years, widow, had used an ear-trumpet for several years, but from the time she commenced to use the artificial drums until her death she was able to hear well, and discarded the ear-trumpet.

I find that patients can easily change the drums by the use of the little instrument which Dr. Cousins has invented for the purpose.

I am, Sirs, yours obediently,

Portsmouth. RICHARD EMMETT.

PROFESSIONAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—May I ask you to kindly give your opinion on the following:—

1. A general practitioner, without the permission of anyone, but at the instance of a friend of the patient, visits, examines, and gives an opinion upon a case which he is told at the time to be under treatment and to have been seen by a specialist, and who neither then asked permission of the relatives or doctor in attendance, nor sent any word of his intention.

2. A hospital surgeon and teacher commences practice in the country by elaborate newspaper announcements and by the issue broadcast of a copy of testimonials in the form of a small pamphlet, and the re-issue of these to any new arrivals in the neighbourhood.

I am, Sirs, yours truly,

September, 1889. A LEARNER.

*** The publication of such instances of unprofessional methods is one of the best ways of treating them. They may serve as a beacon to deter others from such violation of medical ethics. They would be a proper subject of protest by the medical men of the neighbourhood.—ED. L.

MEDICAL FEES IN LIFE ASSURANCE.

To the Editors of THE LANCET.

SIRS,—I recently examined a life for The —— Insurance Society, and received in return for my opinion the sum of 10*s.* 6*d.* instead of £1 1*s.*, because the policy was for a sum under £500. Surely this was hardly to be expected when dealing with an office of long-standing and of great financial stability. Will any of your readers tell me whether it is a usual proceeding?—I am, Sirs, yours faithfully,

Sept. 18th, 1889. G. F. H.

*** The question is referred to in another column.—ED. L.

PRINCIPALS AND ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—I see in your issue of this week what appears to me rather a remarkable opinion on "the respective claims of principals and assistants to fees"—viz., that the division of the fee in a court case was right. The assistant is generally engaged to give the principal assistance in all branches of his profession, for which he receives a salary. Surely he has no right to do work for payment and use his energies apart from the practice, as his whole time is paid for. It appears to me that the principal is entitled to *all* fees, and if the assistant were even to write an article for a journal for which he received payment, that sum would be morally the principal's, as the energy which was expended on it was energy paid for by the principal to be expended on the practice. Of course, if the assistant asked for and obtained leave the case would be different. In midwifery cases the assistant, by arrangement, sometimes gets part of the fee. By arrangement, it might become his due in jurisprudence cases.

I am, Sirs, yours truly,

Sept. 21st, 1889. PRINCIPAL.

*** We agree with our correspondent, though he carries his argument rather too far when he maintains that a principal is entitled to the fee for a literary article written by an assistant, presumably in spare moments and without neglecting the interests of his principal. We said last week, and in reference to the particular case, that the assistant must be considered as acting for the principal. The division of a fee by the principal is, in the absence of contract, generous. When we said that the division of this particular fee was right we did not mean to imply that the principal was bound so to divide it, but that as an irregular and unexpected sort of fee it was well to divide it. A principal loses nothing by a little liberality in such circumstances.—ED. L.

A. B.—We cannot regard as professional conduct such as that described. We think that remonstrance should be offered; and if this be unavailing, a severance of professional relations should be effected.

THE REGISTRATION OF MIDWIVES.

To the Editors of THE LANCET.

SIRS,—We are glad to see that public attention is at length being called to the crying evil of uncertificated women practising as midwives. The recent cases, reported in various papers, of death through puerperal fever, conveyed to six poor lying-in women by an uncertificated midwife, set forth in a striking manner the need of legislation as to the employment of untrained and irresponsible women. Though there are now many well-trained and certificated midwives in practice, the uncertificated woman will continue to be employed to the great detriment of mothers and infants, and nothing but compulsory registration—that is, by Act of Parliament—will meet the case. It is earnestly hoped, therefore, that the Bill for the Registration of Midwives, notice of which has been given in the House of Commons, will shortly extend to the mothers of England that protection in childbirth which they can command in every other European country. The Midwives' Institute has been quietly and steadily working towards this end for the last eight years, and will gladly supply all information on this subject to anyone desiring it.—I am, Sirs, yours faithfully,

MARGARET NICHOL,

15, Buckingham-st., Strand, W.C. Secretary, Midwives' Institute.

COMBINATION OF ANTIPYRIN AND SALICYLATE OF SODA.

To the Editors of THE LANCET.

SIRS,—During last week I was called upon to visit a patient who was suffering from a rheumatic sore throat and severe pains in the legs, which afterwards proved to be antecedent to an attack of erythema nodosum. To allay the pain I ordered powders containing antipyrin and salicylate of soda. To my astonishment, I found that by the combination of these two drugs a cream resulted after a period of a few hours. Evidently a hygroscopic compound resulted which attracted moisture from the air. A similar cream or syrup is produced by the combination of chloral and camphor, and also by the union of alumen and sulphate of zinc. Does the syrup that is formed result in the formation of a new compound? And, if so, what is its nature and formula? Further, is the pharmacological action of the two drugs destroyed by the combination? Since I discovered the effect of the union of the two drugs I now order them in solution. Later I tried to mix antifebrin and salicylate of soda (both white powders), and I found that a pink powder resulted. What is the change in this case?

I am, Sirs, yours obediently,

Burnley. JAMES MONTEITH, M.B., M.Ch.Edin.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Savage, London; Mr. Butlin, London; Dr. Ewart, London; Prof. E. F. Wells, Chicago; Professor Marshall; Dr. W. S. Colman, London; Dr. Lloyd Tuckey, London; Mr. M. A. de Quadros, Hulme; Messrs. Burroughs and Wellcome, London; Mr. C. Roberts, Uxbridge; Mr. Knight Treves, Margate; Mr. Page, London; Mr. G. A. Wright; Mr. Mark Style, Bromyard; Mr. F. Marsh, Birmingham; Mr. Thomas, Cardiff; Mr. W. B. Cosens, Taunton; Mr. Chick-Lucas, Brading; Mr. H. W. Dodd, London; Dr. A. Duke, Dublin; Dr. Chepmell, London; Mr. H. Thompson, Hull; Dr. G. Thompson, Stapleton; Messrs. MacLehose and Sons, Glasgow; Surg.-General Johnston, Northwich; Dr. Norman Kerr, London; Mr. Anderson, Fressingfield; Messrs. McKesson and

Robbins, New York; Mr. A. E. Lyster, Coleshill; Dr. H. Thomson, Glasgow; Mr. Doran, London; Dr. Rentoul, Liverpool; Mr. Biddle, Kingston; Dr. Dickinson, London; Dr. Middleton, Glasgow; Dr. R. Barnes, London; Dr. J. Phillips, London; Mr. W. G. Earle, Burton; Dr. Quinlan, Dublin; Mrs. Levick, Paris; Mr. Hicks, London; Dr. T. Williams, London; Mr. Thomas, Liverpool; Mr. Somerville, Edinburgh; Mr. Cornish, Manchester; Mr. Low, Gibraltar; Dr. Hoskan, co. Mayo; Mr. Carter, Birkenhead; Mr. Ramsden, Edinburgh; Mr. H. Thorne, Liverpool; Mr. Kimpton, Marylebone; Mr. Bartwell, Brentwood; Mr. Gurner, London; Mr. Crow, Canterbury; Dr. T. Williams, London; Dr. Dixon, Arundel; Mr. Lauder, Batley; Messrs. Ridges and Sons, Wolverhampton; Mrs. Budge, Devon; Messrs. Hopkinson and Co., Notts.; Mr. Holman, Haverstock-hill; Messrs. W. H. Smith and Son, Strand; Mr. Thompson, Liverpool; Dr. Phillips, Virginia Water; Mr. Humphrey, Yorks; Mr. Hornibrook, London; Dr. Palmer, Stroud; Mr. Lamond, Glasgow; Dr. Newcome, Canada; Mr. Graham, Montreal, Canada; Mr. Hiller, Manchester; Mr. Blakeley; Mr. J. Herbert, Whitby; Mr. H. Kidner, London; Mr. Robinson, St. Thomas's Hospital; McLean, Fulham; Anthracous; Physician; A Learner; Principal; Secretary, Nurses' Institute, Bedford; Secretary, Dundee University College Hospital; X., London; Secretary, Hospital for Sick Children, Bloomsbury; X. Y. Z., London; Medicus, Northwich; An Old Subscriber; Yorks. College, Leeds; A. B.; H. C. S.; University College, Dundee; D. G., London; H. D., London; Hon. Sec., Jersey General Dispensary; Principal, Bembridge; Secretary, Gateshead Dispensary; K. L. M.; Cousin, Lincoln; Matron, Manchester Hospital.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Evans, Llangollen; Mrs. Lawrence, Wolverhampton; Messrs. Seabury and Johnson, London; Mr. Craker, Clifford; Mr. Woodward, Tunbridge Wells; Mr. Cook, Chatham; Mr. Tully, Hastings; Miss Pink, South Devon; Mrs. Boyle, Bristol; Dr. Turnbull, Hull; Messrs. Mitchell and Co., London; Mr. Pickworth, Brandon; Dr. Roulston, Wakefield; Dr. Nicholson, Dover; Mr. Sowerby, Yorks; Mr. Johnston, Edinburgh; Mr. Nicholls, Suffolk; Dr. Cochrane, Skye; Miss West, Didsbury; Mr. Smart, Cambs.; Mr. Cooke, London; Messrs. Warren, Bristol; Mr. Evans, Radnor; Mr. Ashworth, Staffs.; Mr. Warner, Wanstead; Mr. Harris, Beds; Mr. Hunt, Winchester; Dr. Heaven, Burslem; Dr. Murchison, Rosshire; Mr. Cantrell, Derby; Dr. Jones, Hammersmith; Capt. Pead, Dulwich; Mr. Burtwill; Mr. Williams, Pembrokeshire; Mr. Kelvin, Manchester; Messrs. Van Houten and Co., Holland; Dr. Toller, Ilfracombe; Mr. Good, Dorset; Mr. Kerr, Glasgow; Mr. Mackay, Sheffield; Dr. Bailey, Bilston; Dr. Fausset, Tamworth; Mr. Hart, Northamptonshire; Messrs. Ormrod and Co., Cumberland; Miss Williams, Leamington; Messrs. Roberts and Co., London; Mr. Heywood, Manchester; Mr. Heap, Wallasey Hospital; Mr. Scott, Flint; Miss Nugent, Kells; Messrs. Thompson and Co., Curtain-road; Mr. Wadlow, Manchester; Messrs. Reynolds and Branson, Leeds; Dr. Jennings, Skibbereen; Messrs. Battle and Co., Paris; Mrs. Monro, Penge; Mr. Ryan, Cork; Messrs. Growse and Co., Suffolk; Mr. Tregaskis, Cornwall; Dr. Haydon, North Devon; Mr. Field, Dunstable; Mr. Beckton, London; Mr. Weekes, Chatham; Dr. Winkworth, Beds.; Dr. Morton, Ashborne; Mr. Capel, London; Mr. Bromilow, Peterboro'; Mr. Bailey, Hants; Mr. Ward, Penarth; Mr. Dawson, Bournemouth; Diogenes; Ashton, London; A. F., London; Alpha, London; Medicus, London; H., London; Lady Superintendent, Nurses' Institute, Jersey; Bromide, London; Vera, London; Owner, Tredrea; Majendie, London; Riviera, London; Cantab., London; J. H. M., London; Lema, London; Speculum, London; Scalpel, London; L. M., Liverpool; Medicus, Vauxhall; K., London; Vigilans, London; Euston, London; H., Staffs.; K. C. E., London; Principal, Portsmouth; A. Z., London; Partnership, Highbury; G., London; Delta, Southport; Cantab., London; Chemicus, London; O. F. F., Balham; F.R.C.S., London; H. O., London; C. B., North Devon; A. C. E., London; Medicus, Margate; E., Lower Tooting; M. G., London; A. B., London; F. F. D., London; Contra, London; Medicus, Penge; Hygiene, London.

East London Observer, Reading Mercury, Weekly Free Press and Aberdeen Herald, Border Counties Gazette (Berwick), Australian Trading World, Hertfordshire Mercury, Western Chronicle, Surrey Advertiser, Mining Journal, Literary World, &c., have been received.

Medical Diary for the ensuing Week.

Monday, September 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; and Thursday, 9 A.M.

Tuesday, October 1.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
SOCIETY FOR THE STUDY OF INEBRIETY.—4 P.M. Mr. H. Ernest Trestrail: Some of the Circumstances which Favour the Development of Inebriety, and how to meet them.—The President (Dr. Norman Kerr): Note on "Is there an Arsenic Inebriety?"

Wednesday, October 2.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
OBSTETRICAL SOCIETY OF LONDON (the Society's Library, 54, Berners-street, W.).—8 P.M. Specimens will be shown. Dr. Herman: (1) A Contribution to the Anatomy of the Pelvic Floor; (2) On the Changes in the Pelvic Floor which accompany the Slighter Degrees of Prolapse.

Thursday, October 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, October 4.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, October 5.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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